

EIGHTEENTH YEAR, No. 3.

MILWAUKEE, MARCH, 1893.

\$1.00 per Year. 10c. per Copy.

# THE EDW. P. ALLIS COMPANY,

➤ **Mill Builders and Mill Furnishers,** ➤

RELIANCE WORKS.

SOLICIT ORDERS FOR

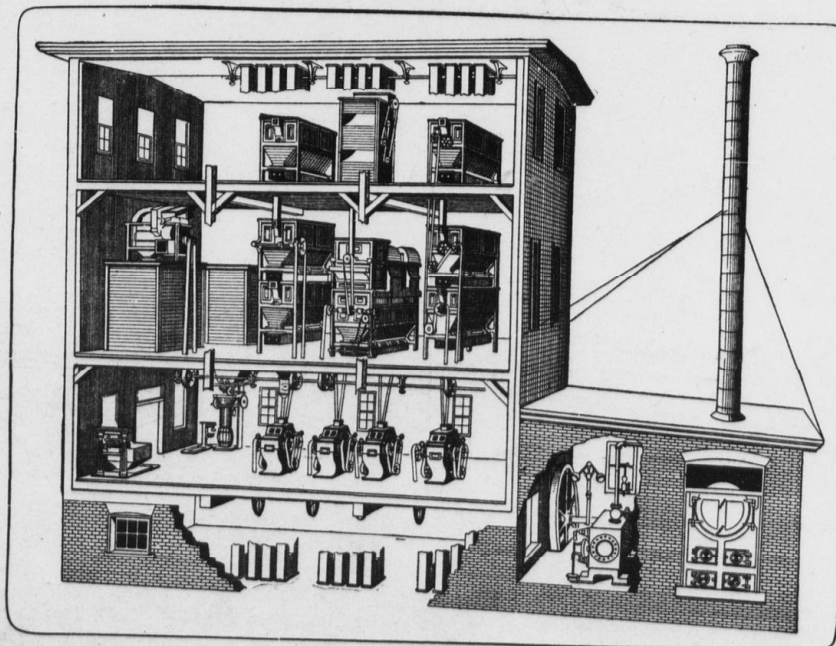
MILWAUKEE, WIS.

## Complete Flour Mill Outfits of any Capacity,

WITH OR WITHOUT MOTIVE POWER.

— ALSO FOR —

Roller Mills,  
Feed Rolls,  
Screenings Rolls,  
Reel Scalpers,  
Sieve Scalpers,  
Flour Dressers,  
Centrifugals,  
Air Purifiers,  
Sieve Purifiers,  
Dust Catchers,  
Meal Purifiers,  
Flour Feeders.



Wheat Cleaners,  
Corn Cleaners,  
Corn Shellers,  
Bran Dusters,  
Flour Packers,  
Wheat Heaters,  
Scales,  
Bolting Cloth,  
Shafting,  
Belting,  
Pulleys,  
Gearing.

WE CAN FURNISH ANYTHING YOU NEED IN THIS LINE AT THE  
LOWEST MARKET PRICES.

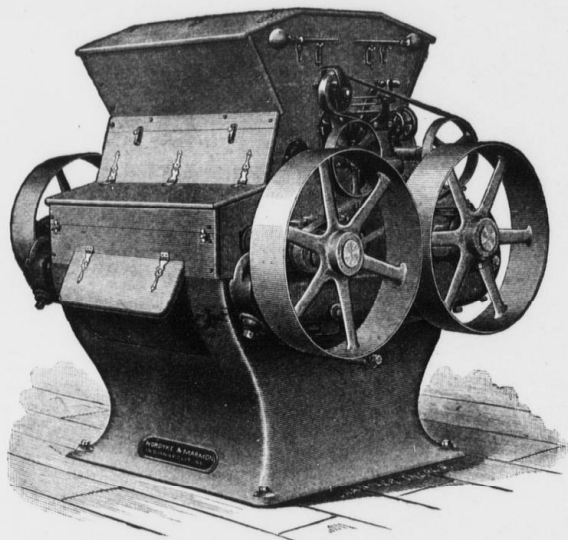
Send for Our 136 page Pocket Price List, which is Very Complete and Handy.

— ALSO —

OUR HAND BOOK "SMALL MODERN MILLS," CONTAINING ILLUSTRATIONS  
AND DESCRIPTIONS OF MILLS FROM 25 to 100 BBLs. CAPACITY.

# FLOURING AND CORN MILLING PLANTS

Contracts solicited for outfits of any desired capacity. Write us, stating your requirements, and we will submit estimates, plans and close prices.

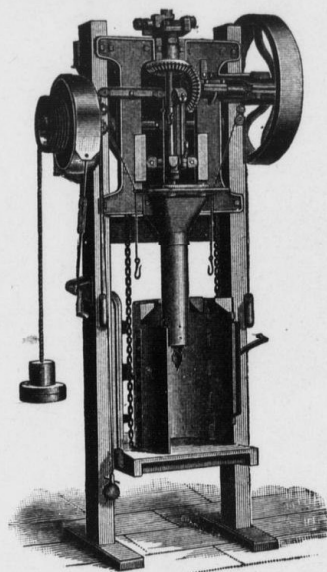


OUR TEN INCH FOUR ROLLER MILL.  
The Heaviest and Most Rigid Roll Blade.

## NO PRUDENT BUYER

Will place his order for Roller Mills, Scalpers, Dressers, Purifiers, Bran Dusters, Degerminators, Roller Corn Mills, or other special machinery for Flour Mills, Fine Corn Goods Plants, Starch and Rice Mills and Grain Elevators before examining our goods and obtaining our prices.

Write for new price lists and other printed matter.



Our Bran Packer guaranteed to pack Bran in same space required by an equal weight of hard packed flour.

**NORDYKE & MARMON CO.,**  
INDIANAPOLIS, IND.

## EXPORTING MILLERS

Send for copy of the New Edition of the

## Riverside . . . Cable Code

More copies of this work are in actual use to-day than of all other Flour Cable Codes combined.

PRICE OF SINGLE COPY, \$3.00

A proper discount will be made to parties ordering one dozen or more.



ADDRESS ALL ORDERS TO

**Riverside Printing Company,**  
MILWAUKEE, WIS., U. S. A.

Send for circular, giving scope of the work and names of many prominent firms using it, in America and Foreign Countries.

Don't forget to mention this paper when you write.

## FARREL FOUNDRY & MACHINE COMPANY, ANSONIA, CONN.

Sole Manufacturers of the Celebrated



## ANSONIA \* ROLLS

FOR USE IN ROLLER MILLS.

The general experience of American Millers unites in pronouncing these Rolls the very best for Flouring Mill use.

• • These Rolls are now used in all Leading Flouring Mills. • •

CHILLED ROLLS FOR PAPER MILLS A SPECIALTY.

## MILL PICKS

I am one of The Oldest and the Most Extensive Mill Pick Maker in the United States.

— 36 YEARS EXPERIENCE. —

I keep on hand a large stock of new Picks of all sizes.

OLD PICKS DRESSED AND RETURNED PROMPTLY

New Picks will be sent to all parts of the country on trial, and if not first-class, return them at my expense.

### AN OFFER

To any miller who has never had any of my work I will dress Six Picks Free of charge.

Write for prices and other information. Ship Picks to the Old, Reliable Mill Pick Maker,

**W. S. CASTERLIN,**

10-1f Luzerne, Luzerne Co., Pa.

## ROPP'S CALCULATOR

[Revised Edition for 1890.]



This book with its numerous tables, short cuts in figures, etc., is simply invaluable to Millers, Grain Dealers, Farmers and Business men generally. Prices, post-paid, as follows: No. 1, Bound in waterproof leatherette, 50 cents. No. 2, Fine artificial leather, with pocket, silicate slate and account book, 75 cents. No. 3 American Russia or Morocco, with pocket, slate and RENEWABLE account book, \$1.00. Address, **UNITED STATES MILLER,** MILWAUKEE, WIS.

# THE UNITED STATES Miller

EIGHTEENTH YEAR, No. 3.

MILWAUKEE, MARCH, 1893.

\$1.00 per Year. 10c. per Copy.

## WINDMILLS.

Our Improvements on Old-Fashioned Affairs  
All Over the World.

AMERICAN windmills, like almost every other product of American ingenuity and skill, constitute a type quite different from the older forms original in Europe and the East, says the *Engineering Magazine*. The latter all belong to the same species, consisting usually of four arms set at angles of ninety degrees, with sails covering but a small fraction of the circle described in their revolution. The accompanying cut illustrates one of these kind, and is from a photograph, recently taken, of an old mill located in Milwaukee county, Wis. The American mills consist of numerous radial arms and have sails set so closely together that practically the whole circle is covered. These sails are commonly wooden slats or blades, tapering from end to end, and so set that they may intercept the whole current of air passing inside the outer circle described by their tips. They are so inclined as to deflect the air as it passes among them and absorb a considerable portion of its energy. Thus is formed a "screw," somewhat resembling that of a steam vessel, but having a much larger number of blades. It is capable of giving vastly more power and has a much higher efficiency than the old mill, though for a stated power much smaller and lighter and more "business-like" in appearance.

Naturally this improved construction, for which credit is due to the American mechanic, is displacing its old rival, even in the home of the latter, and the "American" mill is now to be seen all over the world—England, Germany, France, Holland and their colonies on the opposite side of the globe having all taken it up, as they have so many other of the fruits of the genius of the "Yankee" inventor, and with results most satisfactory to themselves no less than to the inventor.

## MILLING COMPETITION.

If the reports that go out from the late millers' meetings at Chicago, and elsewhere, are correct, there is too little of that

many of him. Millers are already in the field who bless their stars that they are not of it nor in it with the claim for patronage, that they can make

it even, to say nothing of the recalcitrant miller outside.

If the many independent mills were to be consolidated in a few big corporations, they could be handled for mutual interest of all that were in them, and thumbscrews could be made that would hold the outsider up, at least, to moderate acquiescence in plans for the common weal. Of course, profits would increase with harmony. All the world is looking for profits, and if they grow, the list of mills would grow. Everyone would be a miller if milling paid best. It is because milling did pay that there are so many millers now, and it is because there are so many millers now that milling don't pay. If a combination were to effect the present objects it could not be more than temporary, for mills would multiply to be bought up, if for nothing else, if there were money in it. By it, extra disbursements for more mills, when there are already too many, would more than equal the profits. Any man could afford to have a mill to be "hushed." The plan promises little of permanent success, with the outsider apparently in luck. Like other occupations, milling will have to stand competition, and the miller live or die by fitness or the want of it.—*Market Record*.



restful peace among its members, to assure harmonious workings inside the order. The obstacle to a dove-like peacefulness, to hold together the miller, is that there are too

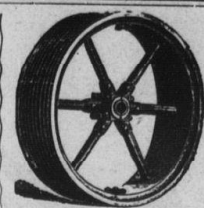
such prices to their patrons as they choose to make, with none, officially, to criticise their actions. Their is too little coherence in the present millers' organization to apply the whip in

an earthen vessel. Cover and keep in a cool place. When needed for use, take a portion and soften it with warm water. If you wish to have a pleasant odor, stir in a few drops of oil of cloves.

# H. W. CALDWELL & SON COMPANY,

127, 129, 131 and 133 West Washington Street,

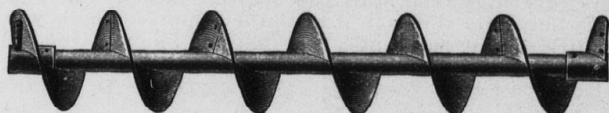
CHICAGO, ILL.



## Conveying, Elevating and Power Transmitting Machinery.

### Manilla Rope Transmission Outfits Complete.

Sheaves, Pulleys, etc. up to 120 inches diameter, 60 inches face.



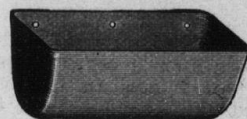
## CALDWELL STEEL CONVEYOR.

Clark Automatic Grain Shovels, Link-Belting and Sprocket Wheels.

*Elevator Boots, Bolts, Buckets and Spouts, Rubber, Leather and Cotton Belting, Gears (all kinds), Hangers, Shafting, Pillow Blocks, Friction Clutches, Jaw Clutches, Iron Pulleys, Set Collars, Take-up Boxes, Turn Head Spouts, Perforated Metal, Wire Cloth, Cogswell Grinding Mills, etc.*

LARGE AND COMPLETE STOCK FOR IMMEDIATE SHIPMENT.

"South Bend"  
Wood Split Pulleys,  
with Iron Hubs  
and Iron Bushings.  
Will not slip on shaft.  
No danger from fire.



Avery Plain and  
Caldwell-Avery  
Corrugated Seamless  
Steel Elevator  
Buckets.



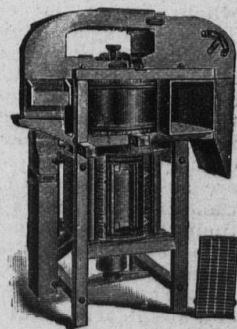
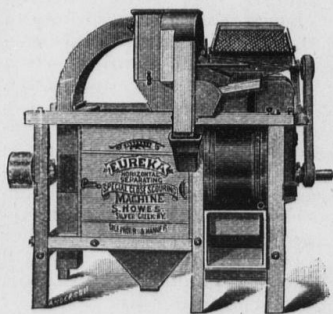
## INCOMPARABLY THE BEST.

Its long prominence before the milling public; its world wide use and endorsement; its unequaled durability justly entitles the

### EUREKA \* GRAIN-CLEANING \* MACHINERY

to be termed as above. In materials, in construction, in fitting and finish it has no superior, in operation knows no equal, and are adapted to the requirements of the day.

S. HOWES, - - SOLE - - MANUFACTURER, SILVER CREEK, N. Y.



## MANUFACTURING SITES FOR SALE!

THE undersigned owns a few of the best manufacturing sites in the city of Milwaukee, adjoining those now occupied by the Milwaukee Car Wheel and Foundry Co. and the magnificent plant of the Fuller-Warren Stove Works, which cover nearly ten acres of ground. Best of railroad facilities. Parties desiring a suitable location should investigate this. Address, \_\_\_\_\_

E. HARRISON CAWKER,

36 & 37 LOAN & TRUST BLDG.

MILWAUKEE, WIS.

## ORGANIZATION OF MILLERS IN THE UNITED STATES.

## THE MILLERS' NATIONAL ASSOCIATION.

Acting President—C. B. COLE,  
2d Vice-President—A. C. LORING,  
Treasurer—S. H. SEAMANS,  
Secretary—FRANK BARRY.

BOARD OF DIRECTORS.	STATE.	OFFICERS OF STATE ASSOCIATIONS.
*C. B. Cole, Chester,	ILLINOIS	President, E. C. Kreider, Jacksonville.
M. S. Blish, Seymour,	INDIANA	Secretary, C. H. Seybt, Highland.
C. R. Underwood, Salina,	KANSAS	President, E. E. C. Hawkes, Goshen.
P. H. Macgill, Baltimore,	MARYLAND	President, Geo. H. Hunter, Wellington.
*W. A. Coombs, Coldwater,	MICHIGAN	Secretary, C. V. Topping, Enterprise.
*Charles J. Martin, Minneapolis,	MINNESOTA	President, P. H. Macgill, Baltimore.
George H. Plant, St. Louis,	MISSOURI	Secretary, J. O. Norris, Baltimore.
C. C. White, Crete,	NEBRASKA	President, W. B. Knickerbocker, Albion.
*Geo. Urban, Buffalo,	NEW YORK	Secretary, M. A. Reynolds, Lansing.
Jno. M. Turner, Mandan,	N. DAKOTA	President, F. L. Greenleaf, Minneapolis.
Homer Baldwin, Youngstown,	OHIO	Secretary, S. M. Carter, Hannibal.
W. Latimer Small, York,	PENNA	President, H. G. Craft, St. Louis.
W. H. Stokes, Watertown,	S. DAKOTA	Secretary, O. A. Cooper, Humboldt.
*Charles Manegold, Milwaukee,	WISCONSIN	President, D. H. Harris, Bennett.
*Members of Executive Committee.		Secretary, A. R. James, Buffalo.
		Secretary, H. F. Shuttleworth, Buffalo.
		President, J. S. Hillyer, London.
		Secretary, G. H. Winters, Grand Forks.
		President, M. H. Davis, Akron.
		Secretary, L. C. Miles, Shelby.
		President, Cyrus Hoffa, Lewisburgh.
		Secretary, L. Levan, Lancaster.
		President, B. H. Kutnewsky, Redfield.
		Secretary, C. A. Lum, Aberdeen.
		President, E. J. Lachman, Neenah.
		Secretary, L. R. Hurd, Milwaukee.

## Associations.

## KANSAS MILLERS' ASSOCIATION.

THE proceedings of the meeting of this association should have reached us in time for publication in our February issue, but as, through neglect, oversight or some cause for which we are not accountable, we did not receive a copy of same until the present month, and then at our written request, our readers will understand the late appearance of the following, somewhat condensed report:

The meeting, which was held at Salina, Feb. 8, was called to order at 2 P. M., by President Geo. H. Hunter. The milling industry of the state was fairly well represented at roll call. The minutes of the last annual meeting, held at Wellington, July 13, 1892, were read and approved. Under the head of "communications," a paper from J. G. Sharp, Secretary of the Mill Owners' Mutual Fire Insurance Co. of Iowa, was read, and mutual insurance was the subject which took up a considerable time of the meeting. Hon. C. R. Underwood, who was not present at the opening of the meeting, having made his appearance, was called upon for his address of welcome and responded in a few remarks, bidding the millers welcome to the city and giving his views on the present milling situation. After a seemingly satisfactory discussion of insurance topics, the subject of crop reports was taken up.

Mr. Chapin, of Ottawa county, stated that one-third to one-half of last year's crop is in the hands of the farmers. The acreage increased 10 per cent and prospect better than last year.

Mr. Kelley, of Barton county, reported 30 per cent on hand. Acreage increased 5 per cent, with prospect of crops at 70 per cent compared with last year.

Mr. Thompson, of Sumner county, reports one-third crops on hand. Acreage increased 10 per cent, with condition better than last year.

Mr. Grant, of Barton county, reported 40 per cent old crop in farmers' hands. Acreage about 95 per cent and condition 70 per cent compared with last year.

Mr. Turner reported for state, 35 per cent on hand. Slight increase in acreage, with condition at 85 per cent of last year.

Mr. Sudendorf, of Saline county, reports 60 per cent of all crops on hand, with acreage and condition equal to last year.

Mr. Sohlberg, of McPherson county, reported 35 per cent on hand. Ten per cent increase in acreage, with condition same as last year.

Mr. Searing, of Cowley county, reported 26 per cent of old crop on hand. Ten per cent increase in acreage, with condition equal or better than last year.

Mr. Brinkman, of Barton county, reported 25 per cent of old crop. Acreage about the same as last year, with condition at 33 1/3 to 50 per cent.

Mr. Krehbiel, of McPherson county, reported 50 per cent in hands of farmers. Acreage equal, with condition not so favorable as last year.

Mr. Colburn, of McPherson county, reported one-third old crops in hands of farmers. Acreage about same, with unfavorable condition.

Mr. Campbell, of Dickinson county, 30 per cent of old crops in hands of farmers. Acreage 5 per cent greater, with conditions 10 per cent greater than last year.

W. T. Soden, of Lyons county, 25 to 30 per cent on hand. Acreage 10 to 15 per cent greater, with condition better than last year.

Mr. Underwood, Saline county, about one-half or more in hands

of farmers. Increased acreage and better than last year.

Mr. Hoffman, Dickinson county, 40 to 45 per cent on hand. Acreage 5 per cent greater, with condition better than last year.

Mr. Hunter, of Sumner county, 35 per cent on hand. Acreage 15 per cent greater, with conditions better than last year.

A report of the railroad committee was next given. After some discussion regarding the Texas differential milling in transit, over-loading cars, etc., the meeting was adjourned to 7 P. M.

Meeting called to order by President Geo. H. Hunter.

The following resolutions were reported by the committee.

We, your committee on insurance, beg leave to report the following:

WHEREAS, The resolutions in regard to the Millers' National Insurance Co., at the last annual meeting, have been misconstrued by some; and have been used by persons unfriendly to the Millers' National Insurance Company to the detriment of said insurance company and the millers of Kansas, and have been made the basis of sensational newspaper reports, therefore be it

Resolved, That we disclaim any intention to impugn the motives and acts of the directors of the Millers' National Insurance Company; that we congratulate them upon the able and successful manner in which they have conducted the affairs of said company.

Resolved, That the policy, plan and management of the said Millers' National Insurance Company has been such as to merit the confidence of its patrons; that it affords safe and reliable insurance rates at less than Board companies and that we would recommend it to the favorable consideration of Kansas millers.

WHEREAS, Mr. C. V. Topping, the secretary of this association, has been unjustly accused by misinformed members of the board of directors of the Millers' National Insurance Company, of having endeavored to injure said company, therefore, be it

Resolved, That Mr. Topping has not exceeded the instructions given him at the annual meeting of the association, but has faithfully carried them out; and we hereby express our confidence in him and endorse his actions.

Resolved, That a copy of these resolutions be transmitted to the secretary of the Millers' National Insurance Company, and to the milling papers.

Signed, (C. B. HOFFMAN,  
C. H. SEARING,  
GEO. H. HUNTER.

They were ordered approved and spread on the minutes, and the committee discharged.

Moved and carried that the Railroad committee counsel with the various railroads and try and secure for the millers a tonnage in and out mill in transit arrangement. Senate bill No. 16 was taken up by the members, relating to the putting in of track scales by the railroad companies, and discussed quite freely by all. Mr. A. Turner, president of the A. T. & S. F., was called upon and outlined the railroad side of the case. He was followed by Tay-

lor Miller on behalf of the bill. After quite a lengthy discussion, in which nearly all opposed the passage of the bill in its present shape, it was thought best to take no action in the matter. It was moved and carried that the next annual meeting be held in Ottawa, Kansas, in July, at the call of the secretary.

No further business the meeting adjourned.

C. V. TOPPING, Sec'y.

## FLOUR TRADE DURING FEBRUARY

Judging from the reports received, the millers of the United States were not favored with a very active demand for flour during February. The export trade was moderate, and the business generally was in supplying local wants. In New England, trade was dull, and stocks slightly enlarged. Reports from New York indicated only a fair trade. In Pennsylvania and Delaware business was within moderate limits. Trade in Maryland rather light, and chiefly for local wants. In Virginia and West Virginia trade was comparatively light. In Ohio, trade was moderate and prices unsatisfactory, with local buyers accepting fair quantities. In Michigan, a fair business was transacted, though chiefly in small lots.

Millers in Indiana reported a fairly good home trade, but orders from the Eastern and foreign markets were small. In Illinois millers were manufacturing flour rather freely, and enjoyed a good trade, but stocks were somewhat enlarged. In Kentucky and Tennessee, a moderate trade was reported. Reports from Texas indicated a moderate business. In Missouri and Kansas, a fair to good trade was reported, though chiefly to meet local wants. Trade in Iowa was quiet, and in Nebraska only moderate. In Wisconsin trade was fair. In the Northwest, a moderately good demand prevailed, with about the usual proportion for export. In Colorado and Utah, trade was only fair. On the Pacific Coast, only a moderate business was transacted. In Canada, trade was generally quiet.—*Chicago Trade Bulletin.*

## DEATH OF THE OLDEST MILLER.

Robert Ryman, the oldest miller, in active service, in the United States, died recently. He was born May, 1799, and from his earliest recollections had been engaged in milling at the old grist mill of which he was owner at the time of his death. The mill itself is quite an antiquated affair and is located in Fayette County, about nine miles from Versailles, Ky., and was built by the father of the late owner, immediately after the Revolutionary war.

## RANDOM THOUGHTS.

BY WANDERER.

IN some respects we are ahead of European millbuilders in the design of our mills, yet we always find something to learn from them and profit by their experience. One reason why our mills are apt to reach a standard of perfection ahead of theirs is, because we have many opportunities to introduce the experience of millers who come to this country and remain with us. On the other hand it rarely occurs that an American miller goes to Europe to remain there and follow the business. All he cares is to stay there a sufficient length of time to familiarize himself with foreign methods and practices and then return to his "first love" and introduce such as he may consider most profitable to himself.

There are certain advantages which our friends across the water possess. In the first place they exercise greater patience in the construction of their mills. The building itself, for instance, is designed with the utmost care. It is put up to stay. Foundations are rigid to the extreme. The walls are of enormous thickness. The foundations reach completion with less than half the speed that they do in this country. Likewise the design of the machinery. Everything is given the most careful consideration. I once heard a prominent millowner make a remark that pretty well illustrates the hurry and carelessness frequently exercised in this country. He was about to let his contract for his mill-building. He was advised by the representative of a mill-furnishing house, to first secure a complete set of plans and specifications, drawn up by some one who understood all of the essential details in regard to dimensions, strength, convenience etc. Upon being informed that the plans would probably cost him fifty or a hundred dollars, he threw up both hands and exclaimed that he would invest the money in lumber and bricks instead.

\*\*

Where our European friends are too slow and composed we Americans are too careless and flighty. I have known men, who were building mills, to be getting ready to buy wheat about the time the machinery arrived at the mill and were much astonished to find that a considerable length of time would be required before the machinery would be ready for operation. They were solely of the impression that everything was being completed at the shops and nothing further would be required than to set the machines on the various floors and make the necessary

connections for which everything had previously been made to order. In their estimation perhaps a week, or ten days, at the very outside, should be all the time necessary to erect the entire plant. The chances are that the American will either reap or lose a small fortune in the majority of cases, before the European would get his mill started to do something.

\*\*

The commercial end of the business is Lord Supreme, and everything must yield to it. Little does the man in the office care whether his mill is put together with nails or with screws, whether the lumber used still has the bark on or whether it is of the most select pine, highly finished. It is, as a rule, immaterial to him how often his miller may be compelled to crawl on hands and knees, or climb over machines in order to make his rounds through the mill. What he wants and expects, however, is to be able to deliver a barrel of flour out of four bushels and a fraction of wheat that he buys. He, of course, would not object to the even four bushels without the fraction if he could get good flour at the same time. Above all things, whatever the miller may have accomplished at any one time, he is expected to do again every day in the week, if possible.

## THE "NATIONAL" AND PATENT SUITS.

SUPERIOR, Wis., March 13, '93.  
Editor U. S. Miller:

The "old reliable" Millers' National Association seems to have its hands full of late, with the patent suits and rumors of patent suits which are rife in the land. The millers of Wisconsin last year had practical demonstration of the benefits of membership in an organization of this kind. When the Russel suits commenced, and quite a number, who had some doubts as to whether membership was worth the cost of initiation fee and annual dues, quickly made up their minds that the same were very cheap as a premium for insurance against patent litigation, those who suffered suits only wishing they had thought so earlier. Our Pennsylvania friends seem to have had a similar experience lately and those who were members of the State Association, but not of the National, have combined to put up a fight against the claimants under the Brua patents. Without trouble or annoyance to anyone, the National Association quickly provided for the safety of its members so far as these claims go, and I should think the experience of the millers of Pennsylvania in

this instance, following closely upon their long, very expensive, and still unsettled fight upon the Detwiler suits, would prove demonstration sufficient for them, that the province of a state organization is not to attempt defense against patent litigation. The members of the Pennsylvania State Millers' Association have, I am told, spent something like \$30.00 per capita during the past year for the privilege of entering into patent litigation for members, whereas it would have cost them nothing beyond the regular dues in the National Association, had they all belonged to it and left it to fight their battles of this nature. I should think those who belong to both State and National Associations, would find these extra assessments of the State Association for patent troubles, in which they have no interest, and which are for the benefit of the "foolish virgins," who failed to provide oil for their lamps, growing rather monotonous.

It is amusing to note the dissatisfaction evinced by the "outsiders," in relation to the recent license and release under the Brua claims, obtained by the National Association. There is loud talk about "obligation on the part of the Association to fight" and spend the money of those who support it, simply for the benefit of those who refuse to do so and can see no advantage nor obligation on their part to join it. Would it not be just as reasonable for a miller, whose mill had burned, and who had carried no fire insurance, to claim that an insurance company, carrying a line on other mills in his neighborhood, was under obligations to make good to him his loss? Of course, the milling papers, which make it their business to throw mud at the National Association continually and try by every method they can conceive to tear down that organization, criticize and belittle its every action, seize an opportunity of this kind to sympathize with and support the very silly claims of these "burnt outsiders," refusing to see that the first duty of the National is to take care of its members' interests, as it has done.

Now the millers of Minnesota are catching a dose of patent suits under the Lea claims on cockle separators and I trust that the National Association will again demonstrate its efficiency and value by taking care of its members in the most practical and cheapest manner. I am and always have been a strong believer in organization and it pleases me to see those who oppose it and carp against a "defunct" or "impotent" Association brought to grief and made to look foolish.

SMILER.

## EXPORTS OF BREADSTUFFS.

THE following from the advance statement of the United States Bureau of Statistics gives the amount and value of the exports of domestic Breadstuffs from all American ports during the month of February, 1893, and same month 1892:

	1893.		1892.	
	Bush.	Value.	Bush.	Value.
Barley.....	209,055	105,282	156,983	90,249
Corn.....	3,319,074	1,737,520	12,728,990	6,632,080
Oats.....	21,583	11,217	268,494	107,867
Rye.....	104,030	63,810	78,519	799,411
Wheat.....	8,150,122	6,414,548	8,826,155	9,060,311
Total.....	11,802,864	8,332,377	22,768,114	16,689,558

The following, in addition to above, were exported during the month of February, 1893: Cornmeal, 13,844 bbls.; value, \$40,676; oatmeal, 475,427 lbs.; value, \$15,046; wheat flour, 1,025,627 bbls.; value, \$4,593,948. The total valuation of breadstuffs exported during the month was \$12,982,047 against \$23,850,996 for same time in 1892.

## MODERN CONVENIENCES.

One can only realize what vast additions have been made to the number and to the quality of the appliances contributory to the popular enjoyment by contrasting the present with the past. Men whose memories extend back but a decade have witnessed many changes for the better, and the further back they can go, the larger the catalogue of benefits will be. A century ago navigation by steam was unknown; seventy years ago there were no railways; sixty years ago no steamship had crossed the Atlantic; fifty years ago there was no telegraphy; forty years ago no ocean cable; thirty years ago no electric light; twenty years ago no electric heat; ten years ago no telephone.

Seventy years ago it took more time to travel from Boston to New York than it does now to travel from Boston to Chicago, and longer to travel from Boston to Chicago than it does now to get to Oregon. Not only has there been all that saving of time effected, but the fatigues of journeying have been, in a great measure, gotten rid of. Elegant carriages are furnished in which rest can be taken by day, sleep indulged in at night and dainty meals supplied at the will of the passenger. So homelike and agreeable are these modern conveyances that people make up excursion parties and ride in them thousands of miles for pleasure. These conveniences encourage travel, and travel improves the mind.

The people in the world are getting nearer together all the while, and the relationship between them must, on that account, become more and more intimate and cordial.—*Shoe and Leather Reporter.*

## DECIDED IN THE COURTS.

**WHAT CONSTITUTES A TRADE NAME.**—Where manufacturers have made goods for many years, and put their name in various forms, on the different articles, to denote their superior quality, they will acquire a right to use the name, and can make an assignment of its use to another.—*H. A. Williams Mfg. Co. v. Noora*. Supreme Court of Mass. 32 N. E. Rep. 1037.

**REPRESENTATIONS THAT BIND VENDORS.**—Representations of fact made by the owner of property as inducements to its purchase by another, relied upon by the latter as being true, and constituting a substantial inducement to the purchase, become obligatory on the vendor as a contract, even though the vendee may have been also influenced by information derived from other sources.—*Marshall v. Gilman*. Supreme Court of Minnesota. 58 N. W. Rep. 811.

**WHEN MANUFACTURER MAY DECLINE TO FILL ORDER.**—The acceptance by a manufacturer of an order to deliver a purchaser all the goods of a specified class, at specified prices, that might be needed during the season, is merely an offer to furnish the goods, and at any time before it is acted on, he may withdraw the same; but after he has had the benefit of a sale, the entire contract becomes binding, and he cannot thereafter decline to fill further orders.—*Cooper v. Lansing Wheel Co.* Supreme Court of Mich. 54 N. W. Rep. 39.

**PRESUMPTION OF TITLE ON DELIVERY OF GOODS FOR SHIPMENT.**—The legal presumption is, that upon the delivery of goods to a common carrier for shipment, the title thereto vests in the consignee, and this presumption the carrier has a right to rely upon, in the absence of express notice from the consignor to the contrary. The carrier, therefore, has the right to settle with the consignee in case the property is lost, stolen or destroyed.—*Dyer v. Great Northern Ry. Co.* Supreme Court of Minnesota. 53 N. W. Rep. 714.

**RIGHT OF PARTNERS TO SALARY.**—The rule is well settled that unless the partnership agreement provides otherwise, it is the duty of each partner to devote his time and endeavors to the business and interests of the partnership, and neither of them is entitled to remuneration for so doing. But this rule does not prevail when there is an agreement for such compensations, either express or which may be fairly implied from the acts of the partners, or from their course of dealing with each other in the conduct of the business, or

from the circumstances under which extra services are rendered by a partner, for which compensation is claimed.—*Adams v. Warren*. Supreme Court of Alabama. 11 South. Rep. 754.

**WHEN COMBINATION OF DEALERS BECOMES ILLEGAL.**—An agreement between a number of dealers in a commodity to raise the price of the same, in advance of the market price, cannot operate as a restraint upon trade, within the meaning of the act of congress "to protect trade and commerce against unlawful restraint and monopolies," unless such agreement involves an absorption of the entire traffic, and is entered into for the purpose of monopolizing that commodity with the object of extortion.—*United States v. Nelson*. U. S. District Court, Minnesota. 52 Fed. Rep. 646.

**RIGHT OF SELLER TO RESCIND CONTRACT AND RECLAIM GOODS LEVIED ON.**—Where goods are sold on the faith of false and fraudulent statements by the purchaser as to his credit and financial standing, and a few days later the sheriff, under an execution against the purchaser and others, levies on and takes possession of the goods sold, the vendor may rescind the sale, and reclaim the goods. And a demand for the goods by the vendor on the sheriff is sufficient to support an action for the goods without a demand on the purchaser, who has parted with possession of the goods.—*Wise v. Grant*. Supreme Court of New York. 20 N. Y. Sup. 828.

**LIABILITY OF RAILROADS FOR FREIGHT DESTROYED IN CAR FURNISHED FOR LOADING.**—Where goods are delivered to a common carrier to await further orders from the shipper before shipment, the former, while they are so in his custody, is only liable as warehouseman. He is only responsible as carrier where goods are delivered to and accepted by him in the usual course of business for immediate transportation. Therefore, a railroad company which has furnished a shipper with a car which the latter has loaded is liable only as a warehouseman, until notified of the readiness of the car for transportation and of the name of the consignee; and it is not liable as an insurer for the destruction of the lumber by fire while the car is standing on its track before it is so notified.—*Bashlight v. Atlantic & N. C. R. Co.* Supreme Court of North Carolina. 16 S. E. Rep. 323.

**IMPLIED WARRANTY OF MANUFACTURERS.**—If the manufacturer of any article supplies the same on an order for a particular purpose, the contract being

made with reference to the requirements of the person ordering, with the mutual understanding that the article is to be applied to that use without further labor being bestowed upon it, there is an implied warranty that it shall be reasonably fit for that purpose; that is, such as the contract of the person ordering calls for. Such a case should be distinguishable from cases of sales by sample or by mere description, as well as from cases of sales of specific defined property; and if there is a warranty, either express or implied, that the article shall be such as to conform to the requirements of the person ordering it, he can recover damages for breach thereof, even though he receives and uses the article.—*Breen v. Moran*. Supreme Court of Minnesota. 53 N. W. Rep. 755.

## WHEAT STATISTICS.

The *Chicago Bulletin* thus gives the statistical position of wheat: The general estimates of the supplies of wheat in all hands on July 1, 1892, approximated 70,000,000 bushels. Estimating the present crop at 516,000,000 bushels, the available supply for all purposes during the crop year may be estimated at 586,000,000 bushels. Allowing a domestic consumption of 25,000,000 bushels per month—the quantity stated by the Agricultural Department—and the aggregate would be 300,000,000 bushels and the quantity for seeding 54,000,000 bushels. Deducting these estimates from the aggregate, and the quantity available for export and surplus would be 232,000,000 bushels. Allowing 50,000,000 bushels as surplus on July 1, 1893, and the quantity available for export would be about 182,000,000 bushels. The exports during the past eight months were about 135,000,000 bushels, consequently there remains on hand for four months' exports approximately 47,000,000 bushels—equal to about 11,750,000 bushels per month. The average monthly exports during 1891-2 were about 1,880,000 bushels per month. The aggregate supplies in the United States and Canada, in Europe and on passage March 1 were about 229,383,000 bushels, against 234,223,000 bushels one month ago—a decrease of 8,480,000 bushels. The aggregate supplies on hand on March 1, 1892, were 181,604,800 bushels, against 197,357,000 bushels on February 1. The supplies on hand on March 1 were 47,778,200 bushels larger than one year ago.

DURING the month of February the exports of wheat from New Orleans amounted to 1,989,790 bushels, or 381,785 bushels more than in February, 1892.

## GRAIN MILLED IN TRANSIT.

The question of grain milled in transit at points on the Great Northern road was considered at the last meeting of the Western Freight Association, and the report of the Northern committee of the Western Freight Association was adopted. Subsequently the Great Northern claimed that full consideration had not been given the matter by the Northern committee and requested that it be resubmitted. In accordance with that request the matter was referred to J. T. Clark, chairman of the Northern committee. The committee recommended that the chairman of the association arrange with the Great Northern railway to put in through tariffs on wheat from the territory it desires in competition with the Northern Pacific to Chicago and Milwaukee, and if it desires to give millers on its line the privilege of milling in transit at these rates, the lines east of Minnesota Transfer accept the proportion of the regular tariff rate on flour, based on association divisions from the milling station, or, in other words, that the revenue of the Northern committee lines be the same as if the shipment of flour originated locally at the milling point and was not milled in transit. The report was unanimously adopted, subject to the approval of the Wisconsin Central and the Chicago and Great Western, that were not represented at the meeting. Since then those lines have signified their willingness to carry out the arrangement recommended. Authority is given to put in force the above arrangement February 15 ensuing.—*Chicago Tribune*.

THE contract to furnish more than a mile of turned steel shafting, ranging from 3" to 6" diameter, with the necessary hangers, pillow blocks, clutches, etc., for machinery hall at the World's Columbian Exposition of 1893, has been awarded to the Dodge Manufacturing Co., Mishawaka, Ind. This contract will also include many of their Independence Wood Split Pulleys, and several of their American System Manila Rope Transmissions.

The following from *Chicago Tribune*, Feb. 14th:

## RAILWAY NOTES.

"The Louisville, New Albany & Chicago has just added to its rolling-stock, two new sleeping and boudoir cars, costing nearly \$45,000 each. These cars are said to be the finest ever placed on any road in the country, and are specially designed for use during the World's Columbian Exposition."

These cars are models of elegance and beauty, each Compartment and Boudoir being fitted with a complete toilet set, cleverly hidden from view when not in use. They are in daily service between Chicago and Cincinnati, and should be seen and used, to be fully appreciated.

All of the Monon's through day trains are made up of smoking cars, new coaches and Parlor and Dining Cars.

## ABSOLUTE FIRE PROTECTION.

## A PROFITABLE INVESTMENT.

## The Grinnell Automatic Sprinkler

OVER 1400 FIRES EXTINGUISHED.

The National Milling Company's new mill at Toledo, O., equipped with the Grinnell Sprinkler system, is insured in first-class companies at less than 1½ per cent.

B. W. DAWLEY, General Western Agent,

HOME OFFICE:

.....

PROVIDENCE, R. I.

PROVIDENCE STEAM AND GAS PIPE COMPANY,

115 MONROE STREET,

CHICAGO, ILL.

## FIRES.

At Dallas Centre, Ia., Feb. 16, the flouring mill was burned. Loss, \$5,000; insurance, \$800.

NEAR Mount Etna, Pa., March 1, the flour mill of Daniel Hostetter was burned. Loss, \$4,000.

THE grain elevator of Marston & Larson at Crystal Lake, Minn., was burned Feb. 16. Loss, \$10,000.

At Ayton, Ont., Feb. 26, H. Wenger & Bros.' flour mill and storehouse were burned. Loss, \$40,000; insured.

At Mount Vernon, Ind., Feb. 20, the hominy mill of the Hudnut Co. was burned. Loss, \$100,000; Insurance, \$42,350.

At McKinney, Tex., Feb. 19, the Union mill, a grain warehouse, two cars of meal and other grain were burned. Loss, \$7,500; insurance light.

At Tipton, Ind., Feb. 18, the flouring mill and grain elevator of A. S. Nickey were burned. Loss, \$35,000. The fire was caused by the bursting of a gas pipe.

At Watertown, Ct., March 1, fire was discovered in the feed mill and store of William J. Munson, near the Naugatuck railroad station. Loss, \$4,000; partly insured.

At Centralia Kan., Feb. 28, the elevator of E. L. Horth was totally burned, with a quantity of grain in store. The loss is \$20,000. The insurance on elevator building was \$3,000.

BRIDGEPORT, Ct., March 2.—Berkshire Mills destroyed by fire, but the storehouse filled with barrels of flour was saved. The plant was owned by the A. L. Winton estate and valued at \$40,000; insurance, \$20,000.

FLINT, Mich., Feb. 28.—The buildings of the Thread Flouring Mills Co., together with 4,000 bushels of grain and 800 barrels of flour, burned this morning. Loss, \$75,000; insurance \$25,000. The origin of the fire is unknown.

AT Lebanon Mo., the Laclede roller mills, owned by C. A. Smith, were burned at 6.30 in the morning of March 1. The fire originated, it is thought, from spontaneous combustion in the dust room. Loss, \$20,000; insurance, \$14,500.

HERON LAKE, Minn., Feb. 19.—The grain elevator belonging to Stair, Christianson & Case at this place was burned early this morning. Loss, on building \$3,000. About 1,000 bushels of grain were destroyed. Cause of fire unknown.

At Bellevue, Ohio, Feb. 9, the Wood & Close elevator was burned. Loss, \$8,000 to \$10,000. It was owned by J. B. Wood and J. W. Close. Insurance, \$1,000. Loss to Henry Close & Son, \$3,000 to \$4,000, with \$2,000 insurance.

Close & Easton had grain stored in the building, upon which they had \$1,000 insurance.

At Birmingham, Ala., Feb. 19, the Birmingham Mills were burned, and two carloads of flour and several thousands bushels of meal were destroyed. Total loss, \$80,000; no insurance. The mill belonged to Comer & Wilkerson. J. A. Lewis, superintendent, was asleep in the building and was burned to death.

At Oakes, N. D., the 200-barrel flour mill of the Oakes Milling Co. was burned to the ground Feb. 27. The fire was discovered in the basement at 10 o'clock in the evening, and in an hour every thing was consumed. The origin of the fire is unknown. The building was valued at \$30,000, and \$10,000 worth of wheat and flour was on hand. The building was insured for \$15,000 and the stock for \$5,000.

At Redwood Falls, Minn., Feb. 28, the immense elevator of G. W. Van Dusen Elevator Co. was totally destroyed by fire. It contained 12,000 bushels of wheat, 5,000 of flax. Total loss, \$30,000, probably partially covered by insurance. In fighting the Van Dusen elevator fire the department was hampered by the fact that the steam was not on at the water works till too late to save the building. By hard work the adjoining warehouse was saved. Half of the 12,000 bushels of grain will be fit for feed.

THE fire loss of the United States and Canada as compiled from its daily files by the *Daily Commercial Bulletin*, New York, for February, amounts to \$9,919,900, being about two million dollars less than the total for February, 1892. The following table shows the increase of fire loss during the first two months of 1893, as compared with the same period in 1891 and 1892:

	1891.	1892.	1893.
January.....	\$11,230,000	\$12,564,900	\$17,958,400
February.....	9,226,500	11,914,000	9,919,900
Totals....	\$20,456,500	\$24,478,900	\$27,878,300

There were 186 fires during the month of a greater destructiveness than \$10,000 each, among which are the following:

Ponca, Neb., grain elevator and mill, \$75,000; Lake Crystal, Minn., grain elevator, \$10,000; Granite Falls, Minn., North Star Mills, \$11,000; Newcastle, Ind., flour mills and wood factory, \$18,000; Easton, Pa., flouring mill, \$12,500; Bellevue, O., elevator and grain, \$13,000; Nashville, Tenn., mill, \$38,000; Tipton, Ind., mill and elevator, \$35,000; Mt. Vernon, Ind., hominy mill, \$100,000; Birmingham, Ala., flouring mill, \$80,000; Ayton, Ont., flour mill and storehouse, \$40,000; Redwood Falls, Minn., grain elevator, \$30,000; Bethany, Mo., flour and woolen mills, \$24,000; Flint, Mich., flouring mills, \$50,000; Centralia, Kans., grain elevator, \$20,000; Oakes, N. D., flouring mill, \$40,000.

## AUTOMATIC SPRINKLERS.

At the Boston Fire.

CHICAGO, ILL., March 11th, 1893.

DEAR SIR:—We enclose extract from the *Boston Advertiser* of this morning. The huge conflagration starting in several large business blocks was checked in its Western progress towards Washington street and the heart of the business section, at the "Brown, Durrell & Co." building, where the Grinnell system was installed. The efficient operation of our sprinklers at this point, and the value of such a protection, is attested by the expressions referred to in the *Advertiser's* comments. It is the biggest card and endorsement the sprinkler system has ever had, and all cities should adopt such protection for their mercantile and manufacturing risks. Yours truly,

GENERAL FIRE EXTINGUISHER CO.

From the *Boston Advertiser* of March 11th:

"The Underwriters believe that all that saved the flames from pushing their way to Washington street, was the automatic sprinklers in the Brown-Durrell building. The efficiency of this safeguard has never been so clearly demonstrated in this city before, for when the people left the building they left four inches of water on the floors and a mass of goods reduced to pulp almost by the constant flow of water. The great, soaking building stood as a barrier against the further encroachment of the flames. It was a splendid test of the assistance of the device in fighting fire."

## PROFIT SHARING.

The many who are interested in the various forms of the general plan known as profit sharing will be pleased and benefited by the coming discussion of the system which is proposed as one of the features of the World's Congress Auxiliary at the World's Fair. The Profit Sharing Association will hold several sessions at which addresses will be made by a number of gentlemen prominently identified with economic reform. The Committee of Arrangements includes numerous notable names, and it is expected that the economics and ethics of profit sharing will be entertainingly treated. Facts and figures of the present standing of the movement at home and abroad will be given. As the committee states in its address, profit sharing has now been tried so thoroughly and under

such widely different conditions that the data are available for conclusions of the highest value to the solution of the industrial problem. The social and religious aspect of the system will be handled by three distinguished clergymen, Rev. Edward Everett Hale of Boston; Rev. Washington Gladden, of Columbus, O.; and Principal George Grant, of Queen's College, Kingston, Ont. Considering the difficulties and complications which too often surround industry and enterprise under present conditions, it is well that the attention of the world at large should be thus called to the important subject of profit sharing and the systems that are being so strongly advocated. Several foreign societies interested in the question will likely be represented in the meeting.

## A GOOD INVESTMENT.

Can be bought at a bargain and on easy terms and will pay a better interest than Stocks, Bonds or Real Estate; one of the best ROLLER MILLS in Western Pennsylvania. Situated in a good section, on a railroad, in a good, growing town, having natural gas, water works, telegraph, and all the conveniences for business.

THE MILL has a never-failing water power the year round and has a capacity of one hundred (100) barrels of flour, and ..... tons of buckwheat flour, cornmeal and feed daily; and has a custom or exchange trade that will pay a good interest on the capital alone, without investing one dollar in grain or merchant work.

The exchange trade of 1891 alone amounted to over thirty-five thousand (35,000) bushels, and has a good merchant trade in addition, for its capacity.

The whole property, to close up an estate, can now be bought for Eleven thousand (\$11,000.00) dollars, and on terms that it will pay for itself, with a small hand payment.

This is less than one-third of its cost and less than the value of the water power alone, and less than the machinery could be bought for to-day.

The Machinery is new, of the best make, modern and strictly first-class throughout. Lists of which will be furnished on application.

Address, W. CRAIG &amp; CO.,

NEW BETHLEHEM,

Clarion Co., Pa.

CHAS. D. COX, Manager.

MAXIMUM LINES, - - - \$170,000.00.

C. W. MEEKER, Ass't Manager.


**Western**  
**The Mutual Fire Ins. Co., New York.**  
 TOTAL CASH ASSETS, \$1,511,192.21.  
 NET CASH SURPLUS TO POLICY HOLDERS, \$861,376.55.  
**FIRE INSURANCE**  
 AT  
**MINIMUM RATES**  
 ON RISKS EQUIPPED WITH APPROVED SYSTEMS OF  
**AUTOMATIC SPRINKLERS.**  
 TOTAL CASH ASSETS, \$235,692.13. NET CASH SURPLUS, \$214,308.63.  
**The New York Fire Insurance Company, New York.**  
**SELECTED RISKS ONLY.**

226 and 228 La Salle Street,

CHICAGO.

## News.

J. B. CREWS will build a grist mill at Mud River, Ky.

B. J. LEE will erect a roller flouring mill at Belton, Tex.

G. D. L. YOUNT has sold out his flouring mill at Conover, N. C.

MILES PUGSLEY will build a steam flour mill at Armstrong, Minn.

O. B. EMERY has commenced the reconstruction of his burned grist mill at Waterboro, Me.

HENRY WILLSON is preparing to build a 75-barrel roller process flouring mill at Obion Tenn.

LYMAN, FIELD & CO., millers of Norfolk, Va., have been succeeded by the Norfolk Cereal Mills.

A ROLLER-PROCESS flouring mill will be established at High Point, N. C., by North, Watson & Co.

J. B. MAYNARD, of Le Sueur, Minn., has bought the Parker, S. D., flour mills and took possession March 1.

THE new 6,000-barrel mill of the Daisy Roller Mill Co., at West Superior, Wis., commenced operations March 8.

THE AMES flour mill, which was burned at Terrebonne, Minn., a short time since, it is now said, will be rebuilt.

THE LAIDLAW & DUNN Co., of Cincinnati, and the Gordon Pump Co., of Hamilton, have consolidated with \$500,000 capital.

ARTICLES of incorporation were filed Feb. 18, at Duluth by the Duluth Flour Mills Company with \$500,000 capitalization.

CLARY & FRIERSON, of Fall Creek, Tenn., have sold their flouring mill to J. A. & E. D. Tarpley, who will continue the business.

DAVID HIEBERT has sold his mill at Mountain Lake, Minn., to parties from Lambertson, one of whom is said to be Jacob Penner.

MCDANIEL & WHITE, whose mill at Rockreall, Or., was burned last November, have let the contract for a new plant of 125 barrels capacity.

THE Russell-Miller Milling Co., of Superior, Wis., has received a partial shipment of its mill machinery. The consignment consists of 28 cars.

THE contract for furnishing the machinery for the new White Star Mills, of Staunton, Va., has been given to E. P. Allis & Co., of Milwaukee.

AN 80-barrel flouring mill and an electric light plant will be erected at Biloxi, Miss., by E. G. Burkin and associates, under the name of Biloxi Milling Co.

PREPARATIONS are being made by Mr. Miller, of Millersburg, Minn., for

the erection of a 100-bbl. flour mill at a cost of \$10,000, at Millersburg. It will be a steam mill.

BLACK & ROBERTSON of Crystal Falls, Tex., will build a 30-bbl. steam roller mill, and have contracted with The Edw. P. Allis Co. of Milwaukee, for their machinery.

It is now generally understood that the N. P. Elevator Co. will build a new elevator at Buffalo, Minn., the coming season, to take the place of the one that burned.

T. J. WREN, flour, grist and corn mill operator, of Rutherford, Tenn., has associated his three sons in business with him, under the firm name of T. J. Wren & Sons.

THE ALBERT LEA, MINN., MILL CO. has begun work upon its new structure, there being a large force of men employed, the intention being to rush it to completion at once.

NORTHVILLE, S. D., will organize a stock company this spring, and build a flouring mill, and sink an artesian well to furnish power. The first steps, it is said, will be taken at once.

COOPERAGE works will be established at Little Rock, Ark., by the Little Rock Cooperage Company, recently chartered with a capital of \$60,000. Logan H. Root and others are interested.

AN elevator is to be erected in connection with the Wolcott Flour Mills at Faribault, Minn., having a capacity of 50,000 bushels. The daily capacity of the mill with recent additions is 1,000 bushels.

ALL the shafting, pulleys, gearing etc., for the new model packing house of Cudahy Bros., at Cudahy, Wis., one of the suburbs of Milwaukee, will be supplied by The Edw. P. Allis Co., of this city.

THE city of Peshtigo, Wis., will have a new flouring mill. C. W. Delventhal and others of Marinette are to be the owners. The citizens give a cash bonus of \$2,000 and the work will begin at once.

THE City Council of De Pere, Wis., has granted a franchise to the J. F. Dousman Milling Co. to furnish the city with electric lighting for a period of ten years. Work will be commenced on the plant at an early date.

THE BLUE EARTH FARMERS' ALLIANCE contemplate going into the milling business and will have a meeting on the 18th to complete the arrangements for a co-operative mill and elevator at Mapleton, Minn.

J. PLACK & SON, wholesale dealers in flour at Baltimore, have made an assignment to Perry Lee Downs. Jacob Plack, the senior partner, has been in business many years, and formerly claimed to be worth \$50,000.

THE Moorhead, Minn., flouring mill is fast nearing completion. There is a force of 25 men at work

on the building at present. It is expected to be ready for business by April 1, with a capacity of 500 brls. daily.

WM. CADICK & SONS, of Grand View, Ind., are to build a 125-bbl. roller mill, in which machinery made by the Edw. P. Allis Co., of Milwaukee, Wis., will be used. They will be ready to turn out flour by about May 1.

THE HUMPHREY TURBINE AND MACHINE Co., with a capital of \$100,000, has been organized at Cuyahoga Falls, O., for the purpose of manufacturing and dealing in turbine water wheels, water motors and other machinery.

A MILLING company, with a capital of \$10,000 has been formed at Cleveland, Minn., composed, it is said, of W. O. Sloey, L. D. Thayer, and L. C. Harrold. They propose to build a mill in lower town in the spring and will ask a bonus.

THE NORDYKE & MARMON Co., Indianapolis, Ind., have a contract from S. Brower, proprietor of the Stone Ridge Mills, Indianapolis, Iowa, to remodel the mill and put in the new short-system roller process. The mill will have a capacity of 40 brls. Also a corn and buckwheat mill.

AT South Sioux City, an enterprise for which the people on that side of the river have been quietly working for a long time, is about assured. It is a flouring mill which a stock company will build. The mill will be a good size one, and it is expected that it will be commenced soon.

OGDEN, Utah, March 3.—Within the next three months, the flouring interests of the territory will be consolidated and controlled by English and American capitalists. Twelve mills, those of Ogden, Logan and Cache Valley, Davis county, Salt Lake City and Provo, will be in the trust. The deal involves over \$1,000,000 in cash.

MESSRS. PALON & WATSON, who have been operating the elevator at Dundas, Minn., have purchased the Archibald mill property. They will proceed to build a mill building the same size on the ground as the old mill, but not so high. The capacity on the start will be 100 to 200 barrels daily, and if the outlook warrants, the capacity will be enlarged.

WM. GIESKE has sold his stock in the Sleepy Eye (Minn.) Milling Co., to the company, and will withdraw from the business. This deal includes the 400-barrel mill at Sleepy Eye, the 250-barrel mill at Marshall, Minn., and a line of elevators on the Northwestern and Great Northern railways. The property, including grain in store, is worth \$200,000.

THE WISCONSIN GRAIN AND MALT COMPANY, at Appleton, is to double its capacity. It is intended to build a fire-proof elevator with a capacity of 150,000 bushels, and a malt house

with an annual capacity of 150,000 bushels, making a total capacity of 300,000 bushels, the largest plant in the State outside of Milwaukee. Work will begin as soon as possible and be completed by the middle of summer.

A GALLATIN, Tenn., special states that John H. McLaren, the owner of the Gallatin Planing mill and Lumber Company, has sold his buildings, engines, etc., to the new Roller Mill and Elevator Company. The new company will go to work immediately and erect a large four-story building upon the site of the old planing mill and will equip it with the latest improved milling machinery.

F. H. EMERY has the erection of a flouring mill in view, to be located in Mayville, N. D., if the citizens will offer him any inducements to place it there. It is to be a custom mill solely, of from 50 to 75 brls. capacity, and its stockholders are prominent farmers in the vicinity of Mayville and Portland. All the stock has been subscribed for, and the mill is said to be an assured thing.—*Market Record*.

THE DULUTH IMPERIAL MILL CO. give notice that they have established an office at 218 Produce Exchange New York City and appointed W. B. Sheardown agent for New York City and the eastern part of New York State, to succeed Duryea, Watts & Co. The notice concludes as follows: "This being a salaried office all sales will be made for our account and drafts drawn directly on the purchaser. All letters and telegrams relating to business in this territory should be directed to the New York office."

THE big 3,000-h. p. quadruple expansion Reynolds-Corliss engine for the World's Fair is rapidly approaching completion at the works of The Edw. P. Allis Co., and will soon leave for Chicago. It is a horizontal engine arranged the same as twin compound tandem engines with two parallel beds; the first and third cylinders being on one bed, and the second and fourth cylinders on the other. The fly wheel is 30 ft. in diameter and about 78 inches face. The crank shaft weighs 60 tons and is 24 inches in diameter, and a special flat car will have to be secured for its transportation.

The following table shows the aggregate wheat crop of the United States for fourteen years:

	Bushels.
1892.....	515,949,000
1891.....	611,780,000
1900.....	399,262,000
1899.....	490,560,000
1898.....	414,868,000
1897.....	456,329,000
1896.....	467,218,000
1895.....	387,112,000
1894.....	512,763,000
1893.....	420,154,000
1892.....	504,185,000
1891.....	580,280,000
1890.....	498,549,000
1879.....	448,756,000

## HUNGARIAN MILLING.

## Its Character and Extent.

THE following is from a report of Mr. C. Frank Dewey, special agent of the U. S. Department of Agriculture, dated Buda-Pesth, December 27, 1892:

Considering the importance of wheat in our own country, particularly the ever-increasing exports of flour, from about 6,000,000 barrels in 1856 to nearly 15,000,000 barrels in 1891, it is of paramount importance to examine the system and uninterrupted success of the greatest of Europe's milling countries, which is Hungary beyond a question.

Hungarian flour is chiefly famous for its purity, uniform consistency, color and taste. This flour first attracted attention at the London Exposition in 1862, established a firm reputation subsequently at the Vienna Exhibition in 1873, and received the highest medal (grand prix) at the Paris Exhibition in 1878. Since then her product has commanded undivided confidence throughout Europe. The last achievement induced the leading millers of Buda-Pesth to strive for highest perfection. Their investigations led to the realization that the best grain was absolutely necessary to make fine flour; accordingly, an understanding was effected between miller and farmer, largely assisted through the influence of the National Agricultural Society of Hungary. Patriotism, too, as well as the ever growing competition of America, Australia and other countries, caused the chief millers of Buda-Pesth particularly, under the directorship of Hon. Conrad Burchard, the highest authority but one on this subject in this country, to cement cordiality not only between producer and manufacturer, but also between individuals, with a view to exhaust every means to produce the best flour at lowest expense.

Hungarian wheat is peculiar in its quality. It varies with soil and climate. In the more moist and lower countries the grain is rather large, round, of a brighter color, and soft, on the average containing less gluten. On the other hand, the grain on the somewhat higher and dryer ground is hard, dry, brittle, the inside surface smooth, steel-like, and of a somewhat darker hue. This quality prevents it being ground to finest flour without removing first the hull. The process, as necessary as it is difficult, is facilitated by dampening the grain, which lends tenacity to the hull.

This preparatory stage known as "Flachmühlerei" (flat-grinding) produces 60-70 per cent of flour. By the same process the hard or so-called "steel grain," owing to its brittle and firm temperament, intermixes more freely with the hull, and causes the flour to assume a darker shade.

This method is adopted by all the leading mills, and serves, at present, as a basis for the most modern milling system. On this account the soft grain of Europe produces a uniform white, bleached flour which, until recent times, made the French flour superior even to the Russian hard-wheat flour, and prevented Hungarian competition up to the middle of this century. On this account, too, the softer grain flour contains a larger proportion of bran, and subsequently less gluten, and because of its dampness is less able to resist the test of distance and time, in spite of the best French drying systems.

To remedy this evil, to economize and utilize every possible part of the grain, the Hungarians have adopted the so-called Lemolino, or "Hungarian miller," which means that the grain, when dry, is carefully assorted and graded, and the

fine hard parts rounded by attrition in the rollers.

This process attained additional perfection in 1873 through Andreas Mechwart, who improved on the porcelain rollers with a well-tempered steel roller, more economical and equally efficacious, and now in universal use. The old process used to crush hull and kernel simultaneously and inseparably, to the detriment of quality, whereas the latter process leaves the hull in pieces, which can more easily be separated from the flour, and thus realizes 10 per cent more of pure flour in the end.

Of these Mechwart, or Ganz-rollers, some 13,000 are now in use everywhere, and 2,223 employed in the mills of Hungary. It is a matter of pride among native millers to know that even our country has adopted a large part of its milling system under the style of "Hungarian process" or "Patent process," and that it has sent over from time to time technical experts to study its systems; still the native claims that even our shrewd millers, in spite of large imitations, have failed to adopt the industrious, patient and carefully conducted system of Hungary, justly styled "Monture en fini," particularly its system of minute classification, most mills having 12 different grades, whilst some go as high as 13 to 18 against 3 to 4 grades in our own country.

The particular supremacy of Hungarian flour is, aside from the Lemolino, or "high-milling system" under the patent-roller application, to be found chiefly in the character of its wheat. The steam mills of the present have an entirely different system from those of former days. In addition to the careful separation of hull, whiskers, and embryo from the kernel, they strive to cleanse the wheat from every gravel or dust, which, in spite of the farmers' sorting, cleansing and brushing, sticks to the grain, not only spoiling the flour, its color, taste and baking facilities, but injuring also the machinery. A careful system of adaptable machinery, sharp, horizontally-shaped, soft stone rollers, catches the grain, and, after several revolutions, deliver it free of all odds and ends. These and similar applications, produce the most pure and absolutely clean grain, and a superior quality of flour, which, in spite of modern competition, has maintained its supremacy in nearly all foreign markets.

Next to the miller, the farmer pays equal attention and assiduous care to the cultivation of the grain, fully realizing that success nowadays chiefly depends on his discretion and honesty. With this in mind, the farmer feels it his duty to support the miller, whose product, if perfect, will always sell, whereas the farmer may find supply and demand frequently against him.

Unequaled hitherto in the history of her industries, considering the disadvantages of her geographical location, is Hungary's milling, and it may not prove uninteresting to allow a short retrospect of her milling up to the present state of perfection.

The first mills on record were five water-power mills, established in the beginning of the eleventh century. They continued to thrive and increase up to the early part of the eighteenth century, when 178 horse-power (dry) mills were added. The first windmill was built in 1811, and the first steam mill in 1840. These continued multiplying up to the present with the following kinds:

Steam mills of the first order, 122; S. M. of the second order, 788; water-power mills, first order, 81; W. P. M., second order, 12,439; dry water mills (propelled by cattle power), 3,197; windmills, 650; total of mills in Hungary to-day, 17,277.

Franz Salomon, in his interesting "Geschichte von Budapest," credits the Ofener citizens with possessing large water-power mills on the banks of the Danube as early as 1292. After the Turk's evacuation, and her subsequent independence with constitution and separate government in 1867, a new era of progress and prosperity began in all directions, but most particularly in her agriculture. Her steam mills soon crowded out most all of the so-called dry mills (run by cattle power) and many villages in the interior even imitated the example of Budapest enterprise.

The leading thirteen steam mills of Hungary are situated in Buda-Pesth and suburbs, representing a total of 11,414 horse-power. These use pit-coal for firing purposes whilst the smaller mills still use wood and coal, and a few, in the interior, use even straw.

The eleven largest mills of Hungary have a total milling capacity per day of 19,250 metric centners (a metric centner is 220.46 pounds), of which the Pestor-Walz grinds 3,500 metric centners per day. The average annual output of these eleven mills, from 1880 to 1885, was 4,045,401 metric centners of wheat flour and 1,174,924 metric centners of bran (Kleic) against an average of 4,593,121 metric centners of wheat flour and 1,315,234 metric centners of bran during 1886-1891. The ever increasing capacity and high development of the large steam mills is gradually but surely crowding out the smaller mills, much to the advantage of the farmer, who secures thereby a better market and quicker sales.

From 1885 to 1891, Hungary exported on an average annually 4,201 metric centners of wheat flour. These figures, compared with her imports and exports for a similar period previous to 1885, show that her imports are decreasing, whilst her exports, both in grain and flour, are steadily increasing and inclining gradually, also, to larger home consumption.

The best quality of wheat is the so-called *aczé lox Buza*, or "steel" wheat, and is chiefly raised on the dryer ground; it is round, thick and egg-shaped, whilst the average grain is paler, softer and tenacious.

Hungary's wheat imports, always very small, come chiefly from Roumania and Bulgaria, for purposes of mixing with her finer grades. The imported parcels are subjected to the minutest ocular inspection, with a final test by a mechanical contrivance which gauges the quality with unerring certainty and at the same time determines its value. The qualities are then mixed according to system and practice of each miller, the result being jealously guarded by the owners. Until two years ago, the Budapest mills used to register 17 to 18 qualities of flour, beginning with the highest grades under "00," 0, 1, 2, 3, and downward 4, 5, 6, 7, 8, 8½, 9, and F. (Fussmehl), or bran, divided in two qualities, "F. K.," finer, and "G. K.," coarser; and finally two qualities of semolinos, "A" and "B," the former coarse the latter fine. But the progressive ideas of modern trade have simplified this, and the present system of grading includes 7 to 9 qualities, beginning with the highest under 0, 1, 2, 3, 4, 5 and 6, with "A" and "B" as before. In other respects their methods and mechanisms resemble ours.

When the flour is put up for shipment the miller's name is printed on each sack with a lead seal bearing his initials, date of manufacture, quality and running number. The finest grades of flour are kept two or three months in stock before shipment, whilst the other grades are carried off at once. By this conscientious practice Hungarian millers have succeeded in main-

taining their enviable reputation at home and abroad.

The highest quality of Hungarian flour is not pale or bleached white, but rather yellow-white, resembling the color of fine ivory, and giving the "0" and No. 1 qualities a velvety surface, mellow, mealy, anything but glossy smooth, of which the native millers are justly proud.

Adulteration of flour is hardly ever known in this country, every miller being anxious to maintain his well and hard-earned reputation. Once in a while, on very large contracts, an unscrupulous miller will substitute No. 4 for No. 3, as in recent deliveries to the armies of Bosnia and Herzegovina. It was soon discovered and punished quite severely.

Once a year the millers submit samples of flour to the government inspector of the Royal Exchange, and the latter, by an ingenious process, decides on color and grade and fixes the scale for mills and the trade.

## The Wellington (Kan.) Daily Mail, of March 10, says:

The Hunter Milling Company has begun the making a change in their mill on South F street which will not only enlarge the mill, make its operation more convenient and furnish power from their mill engine for their 70,000-bushel elevator, but will increase the capacity of the mill from 125 barrels to 200 barrels per day. The mill will be shut down in about ten days. In the meantime there will be such work as, without disturbing its operation, can be performed, that it may not be necessary to cease the manufacture of flour more than two or three weeks. Changes will be made in the mill building proper. A basement will be excavated under the entire structure and entirely new foundations put in. This work is now in progress. The partition between the main building and the addition on the north will be torn out, increasing the ground plan of the mill from 24x32 feet to 32x38 feet in size. An additional story in the form of a mansard roof will be added, greatly increasing the number of square feet of floor space. The entire mill machinery will be taken out—the reels, belts, shafts, cogs, everything will be changed and either replaced in a better and more advantageous position or thrown out. But the greatest change will be throwing out fourteen of the seventeen hexagon reels which now handle the wheat, and replacing them with two of the Faist Automatic Plan-sifter bolting machines.

## Florida and the Sunny South, via the Big Four Route.

To all persons contemplating a southern trip, the Big Four offers special attractions and advantages possessed by no other line. Solid Vestibuled trains, heated with steam and equipped with palace sleeping cars, reclining chair cars and elegant parlor cafe dining cars run daily, making connection in Central Union Station, Cincinnati, with through express trains of the Queen & Crescent Route, Louisville & Nashville, Kentucky Central and Chesapeake & Ohio Railways, avoiding the tedious transfer necessary on other lines and affording practically through train service to Old Point Comfort, Asheville, Chattanooga, New Orleans, Savannah, Jacksonville, St. Augustine, Tampa, Indian River and all winter resorts of the South. Tourist tickets via the Popular Big Four Route at special low rates are on sale at all coupon ticket offices throughout the country. Ask the agent for ticket via the Big Four Route. D. B. MARTIN, General Passenger Agent, Cincinnati, Ohio.

## Milwaukee Notes

DAVIDSON OPERA HOUSE—Every evening, Saturday and Sunday matinees.

BIJOU THEATER—Every evening, Wednesday, Saturday and Sunday matinees.

ACADEMY OF MUSIC—Every evening and usual matinees.

STANDARD THEATER—Every evening and usual matinees.

PEOPLE'S THEATER—Every evening and usual matinees.

GERMAN STADT THEATER—Regular performances Wednesday and Sunday evenings.

LAYTON ART GALLERY—Free Tuesdays, Thursdays, Saturdays and Sundays. Admission 25 cents on Wednesdays and Fridays.

PUBLIC MUSEUM—Open daily. Exposition building.

SOME idea of the wholesale and manufacturing business in Milwaukee may be learned from the statement, proven by train records, that the amount of freight business originating in Milwaukee frequently amounts to 850 cars a day out on the St. Paul Road, and nearly the same number on the North-Western. These figures represent simply the freight loaded in this city and sent out—not that which is received or passes through.

WHEN it was announced on the bulletin board of the Chamber of Commerce that the Hatch bill had been defeated there was a little applause, but no such outbreak as might have been expected from a body of men whose business had been in jeopardy. The apathy is accounted for by the fact that the brokers have been satisfied for some time past that the bill would not pass the House. The announcement that the bill had been defeated had no effect whatever on the market.

THE new machine shop of the Edw. P. Allis Co. of this city has reached the third story. It is 300x100 ft. and to be five stories in height. The first story is 30 ft. The building will be devoted to heavy work and will be equipped with the largest electric traveling cranes and general machinery of immense character. Its cost is estimated at \$250,000.

THE stock of flour in Milwaukee on the 1st inst. was 138,000 bbls. of which 40,500 bbls. were held by the mills and 97,500 bbls. were in transit. The mills show, for the past three weeks, an average daily production of 5,683 bbls. of flour.

THERE are at the present time stored in Milwaukee elevators 240,000 bushels of oats awaiting shipment by boat to the East, but no boats can be secured as yet.

THE Milwaukee Bag Co. whose plant was destroyed by the great fire, last fall, will locate on Erie street near Broadway, in a six-story block to be built by Mann Bros.

It was found there was no provision in the rules of the Chamber of Commerce for the disposition of the membership of a deceased member, and

on the 15th inst. a proposed amendment to the rules was submitted, which, under the rules, will be acted upon in one week from date of proposal. The amendment is as follows:

*Resolved*, That Rule XII, be hereby amended by adding the following to section 3:

The membership of a deceased member shall not be subject to assessment for a period of five years, commencing on the termination of the fiscal year in which a death shall occur, except in case of transfer to a new member. If not transferred in five years, the membership shall be deemed to have been relinquished and shall thereupon become and be forfeited, and shall be disposed of in the manner provided by the rules for disposing of memberships forfeited by reason of non-payment of assessments.

THE following report has been adopted by the Board of Directors of the Chamber of Commerce relative to the question of a uniform system of weight-overseeing in elevators:

The board of supervisors of inspection and weighing respectfully recommend that Chamber of Commerce weighers be appointed to supervise the weighing of all grain sent to public elevators. We think three weighers ought to be sufficient. We also recommend that the salaries of these assistant weighers shall be the same as the assistant supervising weighers now employed at the different mills and that the fee for such weighing shall be 40 cents per car, same to be paid by the receiver of the grain or by the party ordering same to store.

The committee stated that it considered the move an important one, and claimed errors would be much less liable to occur if the Chamber supervised the work of elevator weights. The change will go into effect April 3.

A TEUTONIC member of the Chamber of Commerce vouches for the truth of the following:

When they saw the ships approaching  
From the far off sunny Spain,  
When they saw his banner waving  
Red and gold upon the main,  
Then those children of the forest,  
Though so nearly stricken dumb,  
Mustered up their moral courage  
And they shouted: "Wie gehts, Clum!"

THE stock of wheat here is reported at 2,101,033 bush. against 349,672 bush. the corresponding day last year. The following shows the closing prices of wheat on the 15th inst. as compared with those of same day in 1892:

	1893	1892
No. 1, Northern, o. t. ....	68-70	88½
No. 2, Spring, o. t. ....	65	81
No. 2, Spring, in store .....	62½	82½

MAY wheat sold at 65½c and down to 65¼c. Cash wheat ruled 2½c under May and July 2¼c over.

MILLSTUFFS are steady, ranging at \$13.50@13.75 for sacked bran and \$14.50 for middlings.

FLOUR is dull and lower. Hard spring wheat patents, in bbls. \$3.70@3.80; export patents, in sacks, \$3.05@3.15; straights, choice bakers', \$2.15@2.25; export bakers' \$2.25@2.35. Winter patents, in bbls. \$3.50@3.60;

straights, in bbls. \$3.25@3.35. Rye flour, in sacks, \$2.50@2.75; in bbls. \$2.80@3.00.

THE ALLIS COMPANY will have in its exhibit at the World's Fair a historic document to which a great deal of interest attaches. It is a contract made by James Watts and his partner for the construction of an engine. In 1796, some years after Watts had built his first engine, the Birmingham Flour & Bread Company wanted an engine, and the firm of Boulton & Watts, consisting of Matthew Boulton and James Watts, agreed to build it. A contract as long and formal as a state document, was accordingly drawn up, and signed and sealed with much ado. The contract, which has been carefully preserved, passed into the hands of Sir John Benjamin, a wealthy mill-owner of Birmingham, Eng., who desired it to be exhibited at the World's Fair. He thought that it would be fitting to have it a part of the exhibit of the greatest engine builders in the world, and he accordingly loaned it to the Allis company, in whose vaults it is now locked. Some idea of the value placed upon the document by its owner may be gained from the fact that it is insured for £500, nearly \$2,500. The contract is drawn on heavy parchment, the sheet being 21 by 30 inches in size. It is handsomely engrossed, beginning with an elaborately-drawn initial of unique design. The language of the contract is very formal. In substance it sets forth that for the sum of £965 Messrs. Boulton & Watts agree to build for the company an engine "with a power or force equal to that which sixteen horses acting together do commonly exert, or that the power of said engine shall be equal to the raising of 53,000 pounds 10 feet high in 1 minute." The cylinder is to be 36½ by 60 inches, and various other matters of detail are specified. Attached to the contract is a schedule, in which every separate piece of the engine is named, and in the body of the contract it is agreed that those pieces shall all be furnished. The contract is dated October 5, 1796, and it is signed by James Watts and Matthew Boulton on one side, and Joseph Townsend, Thomas Warner, Joseph Taylor, Joseph Barber and William Bingley on the other. It is signed in the presence of Sarah Tomlinson and Samuel Delon, whose signatures are attached. Each signer has attached his seal, and the document is spotted with red wax. It is kept in a handsome plush case, but it will probably be framed for exhibition. The old engine-room in which the engine was placed remained intact up to a

short time ago, and on its walls hung a card signed by Watts, conveying this truth to the engineer: "Keep your water high and your steam low, or you will be blown to—"

## ELECTRIC GRAIN SCALES.

*The Huntingdon (Pa.) News*.—The first Automatic and Electric Scale was put in successful operation on March 7, with the automatic scale working in the mill and the electric register tallying in the office of the B. F. Isenberg Milling Co., of this place. This is the first of these scales to be erected in this manner and is a marvel of success. The Automatic and Electric Scales will become of general use, once their correctness and utility are made known to the public. A brief description may be conveyed in a few words, viz.: A modern Fairbanks scale with a double hopper suspended in the center which, as soon as filled to an exact balance, closes an electric circuit, tilts the hopper and immediately the other end is being filled, which is done with more precision than human hand can do it, as it will only work by an even balance. At the time the hopper tilts a second electric current is conveyed by wire to the office and registers on an electric counting machine, which is also more accurate than the old way of marking a stroke by hand for each measure filled and emptied.

By this new weighing and counting system many useful appliances may be made; one in particular might be mentioned: The scales are arranged in such position that the grain, as weighed and counted, is deposited into the rolls and ground, and with duplicate machines the flour, bran and middlings can be weighed and counted, showing at the office each day the exact amount of grain ground, as well as the amount of flour, etc., produced, thus giving the office every knowledge of what the mill is doing each hour, day or week, and the amount of stock on hand can readily be known by a little calculation at any time.

One of these valuable money-saving scales will be on exhibition at the World's Fair, and be operated with all parts in full view of those whose interest it is to investigate the advantages of this automatic electrical device.

Any further description of the manner of using the scales can be obtained by addressing the Automatic and Electric Scales Co., Huntingdon, Pa.

The company has been recently incorporated with a capital of \$200,000, with B. F. Isenberg as president and general manager, which is sufficient to insure its success.

## TIME TESTS ALL THINGS.

**FOR TWELVE** years, and more, we have been sole builders of the **STEVENS ROLLER MILL**. Its record during that time has been one of uniform success. It is to-day, as it was twelve years ago, the best roller mill made.

1 8 8 0 | **THE "KING" STEVENS ROLLER MILL.** | 1 8 9 3

**BESIDES** the celebrated **STEVENS CORRUGATIONS**, its distinguishing features, are the drop-front frame, long journal boxes, improved adjustable tightener, perfect automatic feed, Stevens spreaders and divided housings. - - -

**THE JOHN T. NOYE MFG. CO., BUFFALO, N. Y.**

Noye-Schindler Bolting Silk, Noye Automatic Engines, Mill Supplies, Complete Mills.

IF YOU WANT INFORMATION ABOUT

## PENSIONS

ADDRESS A LETTER OR POSTAL CARD TO

**THE PRESS CLAIMS COMPANY,**

JOHN WEDDERBURN, Managing Attorney,

P. O. Box 463.

Washington, D. C.

Honorably discharged soldiers and sailors who served ninety days, or over, in the late war, are entitled, if now partially or wholly disabled for ordinary manual labor, whether disability was caused by service or not, and regardless of their pecuniary circumstances.

**WIDOWS** of such soldiers and sailors are entitled (if not remarried) whether soldier's death was due to army service or not, if now dependent upon their own labor for support. Widows not dependent upon their own labor are entitled if the soldier's death was due to service.

**CHILDREN** are entitled (if under sixteen years) in almost all cases where there was no widow, or she has since died or remarried.

**PARENTS** are entitled if soldier left neither widow nor child, provided soldier died in service, or from effects of service, and they are now dependent upon their own labor for support. It makes no difference whether soldier served or died in late war or in regular army or navy.

Soldiers of the late war, pensioned under one law, may apply for higher rates under other laws, without losing any rights.

Thousands of soldiers drawing from \$2 to \$10 per month under the old law are entitled to higher rates under new law, not only on account of disabilities for which now pensioned, but also for others, whether due to service or not.

Soldiers and sailors disabled in line of duty in regular army or navy since the war are also entitled, whether discharged for disability or not.

Survivors, and their widows, of the Black Hawk, Creek, Cherokee and Seminole or Florida Indian Wars of 1832 to 1842, are entitled under a recent act.

Mexican War soldiers and their widows also entitled, if sixty-two years of age or disabled or dependent.

Old claims completed and settlement obtained, whether pension has been granted under later laws or not.

Rejected claims reopened and settlement secured, if rejection improper or illegal.

Certificates of service and discharge obtained for soldiers and sailors of the late war who have lost their original papers.

Send for laws and information. No charge for advice. No fee unless successful. Address,

**THE PRESS CLAIMS COMPANY,**

JOHN WEDDERBURN, Managing Attorney,

P. O. Box 463.

WASHINGTON, D. C.



**DUST! DUST!**  
GIBBS' Patent Dust Protector protects the nose and mouth from inhalations of poisonous dust; invaluable in Mills, Elevators and every industry where dust is troublesome. Perfect protection with perfect ventilation. Nickel-plated protectors \$1, postage 5c. Circulars free. Agents wanted.  
**GIBBS' RESPIRATOR CO.**  
30-36 La Salle St., CHICAGO.

Don't forget to mention this paper when you write.

WE HAVE BEEN MANUFACTURING  
AND SELLING THIS

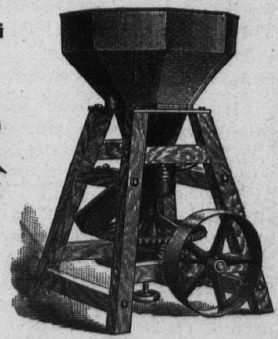
## CRUSHER

For Seven Years

**WITHOUT A COMPLAINT.**

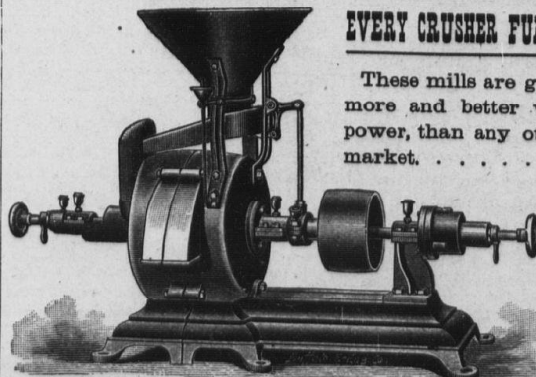
THEY ARE

**ADJUSTABLE, STRONG, DURABLE, LIGHT-RUNNING, AND THE WEARING PARTS ARE REPLACED AT SMALL COST.**



**EVERY CRUSHER FULLY GUARANTEED**

These mills are guaranteed to do more and better work, with less power, than any other mill in the market. . . . .



**No Noise**

**No Dust**

Write for Descriptive Catalogue.

**SPROUT, WALDRON & CO.**  
**MUNCY, PA.**



S. H. SEAMANS, PUBLISHER.

PUBLISHED MONTHLY.

OFFICE:

68-C MITCHELL BUILDING, MILWAUKEE.

Subscription Price—Per Year, in Advance:

To American subscribers, postage

prepaid.....\$1.00

To Canadian subscribers, postage

prepaid.....1.00

Foreign subscriptions.....5s

All Drafts and Post-Office Money Orders

must be made payable to THE UNITED

STATES MILLER.

Bills for advertising will be sent monthly

unless otherwise agreed upon.

For estimates for advertising, address

the UNITED STATES MILLER.

[Entered at the Post-Office at Milwaukee,

Wis., as mail matter of the second class.]

MILWAUKEE, MARCH, 1893.

We respectfully request our readers when they write to persons or firms advertising in this paper, to mention that their advertisement was seen in the UNITED STATES MILLER. You will thereby oblige not only this paper, but the advertisers.

## Editorial.

### A SERIOUS MATTER.

WHAT will be the outcome of the deal in May wheat, now being manipulated in Chicago, is a subject for serious consideration by the entire milling industry of the United States. As the amount of wheat in store, that can be delivered on sales for May, increases, the more danger to be apprehended. All markets move up or down in unison with the fluctuations in Chicago May. Notwithstanding the fact that other markets are on a basis of 10 cents per bushel less than Chicago, for the same grade of wheat, the fluctuations keep step with those in Chicago. On Tuesday of this week, No. 2 Milwaukee wheat touched the lowest point since Milwaukee laid any claim to being a wheat market. Yet all the markets, both in this country and in Europe, are experiencing lower prices than ever known before. Day after day the offers by cable come in a "peg" lower. While all other food stuffs are bringing fair prices, the products from wheat go begging or at begging prices. The facts are, that the miller, the buyer and the consumer understand thoroughly that this "wind" which the manipulators in Chicago have been buying so persistently for several months, will have materialized into a large accumulation of wheat, sufficient to fill every garner in every elevator in Chicago, that can issue receipts "regular" for delivery on con-

tract before the end of May. The six to ten cents per bushel profit to the seller, will force out other grains to make room for wheat until the clique find, as they have often found before, that there was "more corn in Egypt" than they had figured on. The end of May comes—nobody wants the wheat except the clique that have sold it for July. In the meantime, if no crop damage is reported, the buyers of July from the clique, who don't want the cash stuff, are seeking to get rid of it as best they can. It is, therefore, very evident that unless there is serious damage to the crop of this country or Europe, a low level of prices must rule, with the menace staring every miller in the face, that, should the clique fail to carry their deal through successfully, a panic is likely to occur, which will carry prices temporarily below what has ever been known. In the meantime, the sellers are reaping a fine profit, while the miller must pay a competitive price for wheat, above its intrinsic value, and sell his flour at prices made by the buyer, having the fear of a collapse in the market—which is liable to happen—by the failure of the syndicate to carry out their unholy scheme. It is deals of this kind that bring into disrepute Boards of Trade transactions and encourage restrictive legislation more dangerous than the evil it is intended to correct.

### DELAYS IN TRANSIT.

BOTH shippers and receivers have had their patience tried to the utmost, the last three or four months, by the extraordinary time that has been taken to get their shipments and purchases from "mill to market." In our visits to the yards and depots the general complaint seems to be the inability of the transportation companies to move freight with any degree of promptness. First came the extreme cold weather that closed completely the routes across Lake Michigan, then the blizzard and snowstorms, which locked up, as it were, any unfortunate train that had the misfortune to be side-tracked for the time being, as it was securely fastened by the ice and snow until such time as either the snow would soften or its fastenings be chopped out with axes, wielded by a lusty gang of laborers. The complaint has

been so universal that shippers have to make the best of it, while receivers, having no advantages one over another, they too have been inclined to take a philosophical view of the situation. Notwithstanding the rapidly increasing facilities afforded by new routes and new lines of transportation, the fact is apparent that there is still room for more lines and other routes than exist at present. The great Northwest has hardly begun its development. The great increase in its manufacturing industries is an important factor in the transportation problem, which bids fair to rival agricultural productions in volume requiring shipping facilities. Should we be favored with another large crop of grain the coming harvest, it is to be feared another winter will find us suffering still greater delays in transit than those just experienced. We believe this can be overcome in a great measure if our lines of railroads from the West and Northwest will continue their lines by boats across Lake Michigan, similar to the line from Kewaunee to Frankfort. Say the St. Paul, Wisconsin Central and Northwestern railroads had each 4 boats, making a total of 12 boats, that would carry 48 loaded cars per boat, these could deposit over five hundred cars per day on the east shore of Lake Michigan, and these same cars could be speeding on their way through Michigan within an hour after the boat touched the harbor. We offer these suggestions to "the powers," for their consideration, believing that so far as Milwaukee and the territory west and northwest is concerned, the question of delay to the seaboard will be solved.

WE have been asked to "furnish the facts" as to the following:

- I. Number of grist mills in actual operation in the United States in 1892.
- II. Total amount of capital represented by the same.
- III. Total value of product.

Presuming it is facts that are wanted, we must acknowledge that it is not in our power to give them. We might furnish approximate figures, based upon what knowledge and ideas we have regarding the matter, but that would not properly fill the requirement as stated. We have noticed the figures, given in the columns of a contemporary publication as estimates,

quoted as facts according to the statement of the original publisher, until the old "Three Black Crows" story has been thoroughly exemplified. We prefer to be candid with our correspondent and simply say, we don't know, and we do not know where such statistics are obtainable, and where the information would not be open to justifiable criticism. We are perfectly willing to give our idea of approximation, in a private manner, but prefer to withhold from publishing an item for the purpose of courting comment thereon.

WE acknowledge the receipt of a 20-page pamphlet issued by the Bradstreet Company, New York, the contents of which consist chiefly of statistical information as to business failures in the United States and Canada classified according to primary causes of same. These causes are classed under two heads, viz.: A. *Causes due to faults of those failing*, under which are named: I. Incompetence. II. Neglect of business. III. Fraudulent disposition of property. B. *Causes not due to faults of those failing*, under which are named: IV. Disaster. V. Failure of others. VI. Special or undue competition. The work is very complete and comprehensive which is no more than is to be expected in all matters undertaken by Bradstreet.

THE COMMUNICATION of "Smiler" which we publish in this issue is one of several received by us relative to the same matter. This one is selected because of its more close adherence to the one subject, though the others without exception have the same tenor. We call the attention of our readers to it and trust that any one desiring to give expression to his views on the matter referred to, whether in unison with "Smilers," or opposed thereto, will feel at perfect liberty so to do, through our columns, though we request the writer to be as concise and, therefore, as brief as possible.

PRESIDENT E. J. Lachman, of the Wisconsin State Millers' Association, has appointed Charles Manegold, of Milwaukee, as a member of the Board of Directors and Executive Committee of the Millers' National Association, to take the place of Wm. Sanderson, deceased.

## Correspondence.

[The following letters are all from our own special correspondents, and reflect their views and the views of the trade in the location from which they write.]

### NEW YORK.

Another Month of Stagnation in Wheat and Flour Markets.—How the "Minimum Price" Works.—Winter Wheat Mills to Try the Scheme.—City Mills All Running.—Carrying Charges on Flour.

ANOTHER of the "dullest months on record," in the wheat and flour trade has to be added to the already abnormally long list since this crop year came in. One can scarcely realize that this is the same market it was the previous two years, when everybody in the trade was busy selling or delivering old sales for forward delivery; and, when we seldom passed a month, without one or two weeks of activity; and, when either a 10c advance or an equal decline would bring in plenty of buyers, at almost any time of the year, both for home and export.

Now all this seems changed; and, although it cannot be supposed that less flour is used, at our \$1 per barrel less now than then, it is certain that less is sold on the floor of the Produce Exchange by far. Whether this is done direct from the mills to the jobbers, or retailers and bakers, or whether they are drawing their supplies from other markets than this, is a question not yet answered. The fact, however, is patent to everybody that New York is not doing her former share of the trade on this crop. So far as the export trade is concerned, the reason is plain, for this country is neither exporting the wheat nor flour she did last year, as the English markets have not yet cleared off the surplus of flour left over from last crop, and London, in particular, has been depressed all the month by pressure to work off this old stale stock.

There is also another reason effecting both home and export trade unfavorably this year in respect to the next most important grade after Patents, namely, Bakers' Extra or Rye Mixtures, as they are called, which are so poor in color and strength this year that neither home nor export trade can use but a limited amount of them. The result has been that stocks have accumulated both in barrels and bags, until there is a growing pressure to work them off before warm weather shall endanger their condition. The same trouble is feared on the other side; and, while England is still bidding full former prices for Kansas straights and cannot get them fast enough, she will not take any amount of these Spring Bakers' even at prices, which have fallen from \$3.00@3.25 in sacks, early in the season, to \$2.25@2.65

the past month. With common, No. 2 Spring, in sacks, as low as \$2.15@2.20. In the same time, these flours in barrels have dropped from \$3.25@3.50 to \$2.75@3.00, and only choice grades even are salable at \$2.90@3.00, while fancy clear Springs are selling at \$3.25@3.50 even and Straight do. at \$3.90@4.10. Of course, the Spring grades below No. 1 are not bringing more, and are difficult of sale at any advance over the price of feed stuffs, which include no grade, at \$1.65@1.75 in sacks, up to \$1.80@1.85 for superfine Springs, with No. 2 worth but little more, as nobody wants them except for feeding purposes, for export, for which there has been a good English demand, until recently, that has also fallen off.

It is evident, therefore, that the place these Medium and low Spring flours used to take at home and abroad is being taken to a large extent by other flours; and those flours are Winter low grades, which have been and still are scarce and wanted, here and on the other side, at full prices, ranging from \$2.25 for superfine up to \$2.50 for No. 2 and \$2.50@3.00 for No. 1 in barrels, while Straight Indiana is selling fairly in sacks at \$3.25, and \$3.40 is bid and \$3.50 asked for Kansas Straights in sacks. But above these prices, home trade is extremely slow, even on Straight Winters, at \$3.50@3.70 in barrels, although these have been taken more freely the past month than Spring Patents, since the "minimum price" scheme took effect in this grade of flour. But it has not stimulated demand for Winter Patents in the least, although the Winter wheat millers' minimum price arrangement has not yet taken effect. Whatever the cause, certain it is, that since a minimum price was placed on Spring Patents trade has steadily grown less in these grades. Whether buyers had purchased quietly, in advance of its taking effect, for future wants, or are holding off and using up their stocks before they buy again, in hopes of breaking the minimum price scheme, it is impossible to say. But of one thing there is no doubt, that the big receivers and jobbers of flour here are opposed to the arrangement; and claim, that instead of establishing a minimum price, below which no miller will sell, they have only succeeded in establishing a maximum price, above which buyers will not pay; and that the practical effect of the plan is to make the manufacturers of the well-known brands that have hitherto sold at a premium, "hold the bag," while the less known brands fill the demand at or below the minimum price.

On the other hand, the smaller receivers of less well-known and country brands and the smaller jobbers claim that this minimum price arrangement places them on an equal footing with their larger and better known competitors. True it is, that the bulk of the sales of the past month have been in small jobbing lots, with very few lines; which would seem to indicate that the big jobbers have been holding off, for some reason, possibly to tire out the smaller millers, and get them to cut the minimum price (which the big receivers already claim is being done) and thus break up the millers' combination.

Notwithstanding this state of affairs, the winter wheat millers are understood to have arranged for a similar scheme, and contemplate fixing a minimum price on all grades instead of on Patents only, as the Spring wheat mills have done. But this arrangement has not yet been put in force. The Spring wheat mills raised the minimum on Patents last week from \$4.30 to \$4.40, just as the little anti-option defeat boom in wheat petered out; and they have held it there since without any business reported of any amount, though there have been a few buyers of lines at the old price in the market, and some of them are likely to have been accommodated. The city mills did not go into the spring wheat millers' combine and are not to go into that of the winter wheat mills, as they had one of their own already, and were sold up to the middle of this month on their West India grades, on the break of December, when the West India shippers anticipated their wants prior to the new rule, adopted by the city mills on January 1st, to charge 5c per barrel per month, for carrying all flour not taken within a month of the date of sale. Formerly no time of delivery was fixed and buyers contracted away ahead of their wants whenever the wheat market looked like advancing, and the mills had to carry it for them free. Now, buyers are waiting to use up their old stocks before coming in for more; and it has made the city mills very dull, though they have all been running on these old orders. But they had accumulated Patents, of which they turn out about 2,500 barrels daily from their 8,000 to 9,000 bbls. daily production. During the past week they have worked these off on a good city grocery trade at prices about the same as spring patents have been held without selling, as these blended City Patents are becoming steadily more popular for family use, as they are equally good for bread or

pastry, which neither Springs nor Winters are.

The feed market, however, has been active and strong, and the city mills have had it practically to themselves at 85c@90c for 40, 60 and 80 pounds, at which they are easily able to work off their production. Rye flour has done a little better in demand and price, on a light supply, closing at \$2.25@2.40 for all pure flour. Buckwheat flour has been advanced by scarcity and cold weather and closed at \$2.10@2.20.

There has not been enough doing in the wheat market, either for export or speculation, to keep the rust off the hinges of trade or the joints of dealers, brokers and exporters alike, from getting stiff. The defeat of the anti-option bill was expected to bring in the public to buy "this cheap wheat," and everybody got loaded for a boom. But the crowd soon "smelt a mice" when they found the Chicago clique had been supplying them, and they turned about and sold out, since when there has been no support but the shorts and the clique, and but little of the latter, until the trade has come to doubt its ability to hold the market, in face of light moving and gold exports, and the feeling is decidedly bearish.

Exporters have done but little the past month, and that chiefly for the Continent, especially for Spain and Portugal. There has been a good deal of talk of damage to our winter crop, but it is not having much influence in face of still increasing stocks here and in the amount on passage to Europe, despite the light shipments from America and India. Without crop damage or crop scares there are few here now who feel bullish on wheat, as there appears no prospect in sight of a better export demand on existing conditions, notwithstanding very low ocean freights—4 shillings Boston to Liverpool being accepted.

### BUFFALO.

WHAT an erratic, knowing nothing set Buffalo millers are—at least with reference to the alleged millers' trust or "giant flour combine." Their lives have, it would appear, been spent in accumulating a vast amount of dense ignorance. When the "tall millers" assert that they know nothing about this or any other subject, we are inclined to believe them, but when the same assertion is made by Mr. George Urban, whose friends have placed him in line for nomination as governor of New York, or Bon. James, who is credited with designs upon the mayoralty of Buffalo, we fear the facts will hardly bear them out. Why not come out boldly and

acknowledge that an attempt is being made, by organization, to prevent indiscriminate throat cutting in prices, and to protect the miller from the Philistines or sharp Yankee buyer of New England, who has a way of placing orders "shipping directions to be furnished later," and, if the market goes against him, compelling the poor miller to carry the stuff until values again change, thus enabling him to place his purchase at a profit. It is to be hoped the attempt to right these wrongs will be successful. For almost every abuse complained of, the millers have themselves to blame. Instead of paying a good business man a price that he is worth, to represent them with the trade, most of them have been willing to take any stick they could get cheap, to go on the road, with the result that it has been "anything, good Lord, to make a sale." No condition the buyer asks is too unbusinesslike. All the agent has to write his principal is, that "all the other millers are doing it." This is simply another illustration of the fact that a penny-wise and pound-foolish policy always lands a business man in a quagmire. Strange it is that, in matters of this kind, the penny should seem so large as to hide the dollar behind it.

Doing business through so-called millers' agents is another evil which should be regulated. Most miller's agents could be more truthful in their representations if they changed their signs to read "Buyer's Agents." A first-class man at a salary commensurate with his ability, who will work for the miller's interests solely, is the only agent that should be sent out.

There is little use in giving prices of flour here, as they are too much mixed to be of any value. Spring patents were quoted all the way from \$5.40 to \$5.75 and Winter \$3.80 to \$4.10 with other grades in proportion.

The general opinion is, that this has been the coldest winter "in the memory of the oldest inhabitant." It's not true, however. The winter is an average one; a little more steady in low temperature, but nothing severe, and in amount of snowfall only equals last year. The local weather prophet predicts a warm summer, as weather conditions, according to his records, usually follow each other in marked contrast. One thing noticeable and worth remarking is that Buffalo has not had its usual cry of poverty this winter; there has been plenty of work for everybody.

The vessel owner wants a late spring but fears an early break up in spite of the heavy

ice reported at all lake ports. A short season makes a profitable one. If vessels can be held in port until the 10th or middle of May it is thought that the season will be the liveliest on record. The amount of stuff to move was never equalled; seventy million bushels of grain to start with, ten million ton of iron ore, six million tons of coal and no one can estimate the amount of flour and other package freight. Shippers will be more than anxious to get this immense amount of freight on its way early and there is some lively hustling already. The vessel owner is not worrying.

Duluth parties were in this city last week, looking for suitable dock front upon which to erect warehouses. The majority of outside dock hunters want too much. It is singular that none of them have considered the property on the Ohio Basin worth looking into. At \$150 or \$250 per foot and a promised depth of 18 feet of water in front of the dock, it is cheap even as an investment.

Capt. M. De Puy is actively stirring up the elevators again. He is after the legislators with a bill providing for two floating elevators, which are to charge  $\frac{1}{4}$  cent per bushel for unloading and loading canal grain. Of course the state is to furnish and maintain these floaters. He claims it would pay handsomely for the small amount required to build these elevators. Now, if there is any money in it, why do not the canalers or boat owners buy a few floaters and do the work themselves? The scheme of doing this has evidently fallen through again and De Puy wants the tax payers to help him and a few of his kind, out of paying a reasonable charge for transferring grain. Everybody who knows anything about the management of state institutions, is aware that it would cost the state fully 1 cent per bushel to do the work and perhaps a fraction more. De Puy, go help yourself.

Spring wheat sellers in this market are not happy. It is claimed that an agreement to stick to a certain limit over or under Chicago May price is never lived up to and this has caused some ill-feeling, besides a loss to the owners of fully 4 cents per bushel. No. 1 Northern at 75c or 76c seemed to strike the Rochester millers about right and when it got above these figures they usually quit buying.

The amount of Duluth wheat in store here is decreasing rapidly. This week 171,000 bush. of all grades, principally No. 1 Northern and No. 2 Northern were taken out of store, leaving 1,752,017 against 1,555,000 bush. on the same date last year. The

stock here, with such heavy inroads on it, will not last until the opening of the navigation. There will, however, be weeks when the decrease will not reach half these figures and the time is not far distant when millers will consider it necessary to "shut down for repairs."

Winter wheat is selling so slowly that the trade in car loads is practically dead. Country mills are getting sufficient to supply their wants at 3 or even 5 cents under the lowest figures asked here. There are nearly 1,000,000 bushels of white and red winter in store here but not a bushel is offered on this market and probably will not be. Our winter wheat millers are gradually but surely getting more spring wheat into their product and straight winter grades of flour will be lost to memory dear in a few years.

The purchase of Hanrahan's coal yard property by the "H. O." manufacturers was recorded here lately. The site is an excellent one for the purpose, being on the principal railroad tracks and close to the commission market. A mill will be put up as soon as possible. The firm of Edward Ellsworth & Co., have mills in Lockport, Ill. and Craigville, Ill.

The John T. Noye Mfg. Co., have shipped a train of twenty-five cars of milling machinery for the Russell-Miller Co., at West Superior. Another shipment to the value of \$25,000 will be made in a week or two.

The Schoellkopf & Mathews mills at the Falls are running again after two weeks idleness on account of the breaking of their large water wheel. The Central mills took a few days off also.

Freight rates east have advance 1 cent per hundred and it is making a big difference to shippers at this point who had sold stuff for future delivery. The unexpected advances in rates are creating no little dissatisfaction among receivers but nobody has the courage to make a stand against the railroads. The railroad commission is a farce.

The canal rate on wheat to be shipped on the opening is now 5c but nothing has been done lately. Expectations are too high for contracts to be made even at that figure. Those who have taken wheat at  $4\frac{1}{2}$  are sweating already.

Craig & Son will not build car ferries to run between Toledo and Buffalo. Think of breaking ice two feet thick the whole length of Lake Erie and keeping it open all winter. The scheme is impracticable and only a bluff. No one takes the possibilities into serious consideration. The gullibility of some newspaper corre-

spondents makes railroad men, like Agent Fell, smile. They never get a good item of news from a railroad agent. He isn't there for that purpose and only holds his position while he keeps a close mouth. And what a fool a shipper would be to give any snap he has on rates away to the public. Therefore when a miller reads of "differentials" "cut in rates" "discrimination," and other talk of this same sort it will pay him better to get the best rate he can from the railroad agents and not bother about what others are doing on paper.

Mr. Harry Fosbinder, the handsomest man in the canal forwarding business, returned from New York last week. His visit there and the results is keeping others of the fraternity busy guessing.

The Merchant's Exchange Transportation Committee has requested the Central Traffic and Trunk Line Association to allow holders of through tickets to the World's Fair to and from Chicago to stop over in Buffalo if they so desire.

Washburn - Crosby "Gold Medal" sold here this month at \$4.80 per bbl., delivered up 6 flights of stairs. There is a heap of profit in this business somewhere.

The reappointment of Mr. Conway W. Ball as chief grain inspector was made at the first meeting of the Flour and Grain Inspection Committee. The position of chief grain inspector is not without its cares in any market, but here in Buffalo it is thought it carries with it more abuse than usually falls to the lot of so important an individual. It is a great pleasure, however, to see how easy they set upon the shoulders of Mr. Ball. The heated remarks of a constitutional kicker or his pitiable appeal for a re-inspection have no visible effect on that silent man, and rarely do any good. The majority of receivers are perfectly satisfied with his decisions, and understand that he is working for the good of themselves as well as the interest of the Buffalo grain trade.

Mr. Wm. G. Heathfield, Mr. Riley Pratt and Mr. O. G. Spann have been appointed as auditing committee of the inspection department. Good men, all, and true.

Our largest local trade millers, who have an enviable reputation for their family flour and whose product can be found in every corner grocery, have been greatly troubled by complaints of a falling off in quality. Something is wrong and, although many attempts to correct the difficulty have been made the fault still remains. In the meantime Urban's "Pearl" and other favorite brands from this mill, likewise Newman's

"Fawn" and "Akron Falls" are getting in some good licks. Once give these brands a hold and I predict it will be as difficult to dislodge them as it was for customers to make the change.

A contract has been let for the building of a small mill for Mr. W. H. Humphrey.

Negotiations are under way for the control of the Schoellkopf & Mathews canal power by the Niagara Tunnel Co. The millers are abundantly able to go it alone. Combines are detestable to the canal owners and it is not likely that they will enter into one, especially when the power, to be developed by the hydraulic canal, will equal if not surpass that of the Tunnel Company.

The Duryea Starch Co., of Oswego, will move to the Falls. It is said they have spoken for 3,000 horse power at \$15 per year.

Major John Getthere Heinold has recently been adding to his other accomplishments a knowledge of law. He has been fighting a legal duel in the municipal court with Mr. Dennis Wurra-Wurra Bohon. The major established his reputation as an expert in barley and the rules of evidence. Dinny, like McGinty, was arrayed in his best suit of clothes for this occasion and, it is said, dazzled the major so that his evidence was not exactly in accord with his wishes.

Col. Charles Encyclopedia Benedict of the Oakfield Fertilizer Co., is kept busy in the interests of that big company, but finds time, notwithstanding, to act as promoter of one or two other enterprises which are soon to be brought before the public. One is said to be in connection with a gypsum bed and the other a kidney cure. Whether or not it is his intention to make the latter out of the former is not yet learned.

The following letter was sent to the chief inspector here and posted on the board where all such relics usually find their resting place:

CHIEF FLOUR INSPECTOR,  
BUFFALO, N. Y.

Dear Sir:—Can you recommend to me a first-class flour inspector (not a miller) that I could hire by the month (and if the right man by the year) must be good judge of flour and reasonably sober most of the time. And oblige,

Yours respectfully,

A. B. WELLER.

Headmiller, Lake Superior Mills, Superior, Wis.

Now the only trouble about the above is that it excludes our millers. Buffalo could fill this bill, as the only reasonably sober people most of the time are the millers and just now they appear to have time to hire out by the month or century.

There has been an immense trade in feed lately. Winter

bran sold at \$17.50@17.75 readily and, during most of the time, there was not enough to go around. TAURUS.

BUFFALO, March 11, 1893.

## DULUTH.

Conditions Improving.

THE anticipated spring activity is beginning to manifest itself and the big mills are already rehearsing for the busy season. Last week, considerable life was shown about the mills and elevators, and something over 18,000 bbls. were rolled out. The great blizzard of the first of the month retarded matters considerably, checking both the receipts and shipments, but during the present week affairs have been running smoothly. The shipments last week were 23,745 bbls.; in the corresponding week of 1892 the output was 16,049 bbls., and the shipments 15,253 bbls. The railroads received last week 4,728 bbls. for storage until the lake opens. The mills have in store 16,434 bbls., and the railroads 16,188, making a total of 32,622 bbls., against 33,376 for the previous week, and 12,904 for the same week in 1892. A slight improvement is felt in the market, and the demand for flour is growing better.

The output for last week and receipts by rail, together with shipments and stock, are given by the Board of Trade as follows:

	Receipts.	Shipped.	In Store.
	bbls.	bbls.	bbls.
Duluth Mills.....	49,820	15,302	16,434
Superior Mills.....	78,443	5,443	16,188
Northern Pacific.....	750	—	3,000
St. Paul & Duluth.....	3,978	—	13,188
Total.....	22,991	23,745	32,622
*Output, total, 18,263 bbls.			

The output for the four previous weeks, with comparisons, was as follows:

	1893.	1892.	1891.
	Output.	Output.	Output.
	bbls.	bbls.	bbls.
March 4.....	18,263	2,286	16,049
Feb. 25.....	12,257	6,216	11,167
Feb. 18.....	4,541	2,881	12,282
Feb. 11.....	21,772	2,500	16,913

The same report showed the amount of grain in store at Duluth and Superior on Monday to be as follows:

	March 4, 1893.	Feb. 25, 1892.	March 5, 1891.
	bus.	bus.	bus.
No. 1 hard.....	958,000	955,389	1,546,825
No. 1 northern.....	12,735,884	12,739,553	4,067,602
No. 2 northern.....	1,822,862	1,826,460	1,429,267
No. 3 Spring.....	184,974	181,690	535,743
No grade.....	64,184	59,892	1,200,808
Rejected and condemned.....	56,470	57,936	102,661
Special bin.....	107,367	107,651	44,331

Total wheat.....	15,929,730	15,915,575	8,927,267
Afloat in harbor.....	571,300	571,100	400,703

Total.....	16,500,834	16,486,675	9,327,970
In store last year.....	9,327,970	8,985,500	4,067,549
Corn in store.....	341,341	341,341	—
Rye in store.....	15,420	15,420	—
Barley in store.....	5,169	5,169	25,688
Flaxseed in store.....	226,088	226,088	250,467

Production, receipts and shipments of flour and receipts and shipments of grain at the head of the lakes during February, compared with February, 1892, were as follows:

	1893.	1892.
	Receipts.	Receipts.
	bbls.	bbls.
Flour produced, Duluth.....	48,193	77,220
Flour produced, Superior.....	16,751	—
Flour received, bbls.....	11,460	—
Wheat, bus.....	236,496	1,159,302
Corn, bus.....	39,478	—
Flax Seed, bus.....	374	29,620
	Shipments.	Shipments.
	bbls.	bbls.
Flour from Duluth.....	52,054	81,117
Flour from Superior.....	16,751	—
Wheat, bus.....	15,877	121,829
Flax seed, bus.....	374	1,025

## DULUTH ELEVATORS.

Senator Sevaton is extending his large elevator system into Duluth and has signed a contract with a real estate concern here to erect two elevators, one a working elevator of 250,000 bus. capacity, and the other a connected warehouse of some 500,000 bus. capacity. Mr. Sevaton secured a strip of land 750 feet in length in West Duluth and will commence at once the erection of the big bins. It is generally understood that these two elevators of somewhat limited capacity are but the introduction of an elaborate system which he will maintain here. Undoubtedly a flouring mill will follow, and in time it is expected an enormous amount of grain will be handled on the Upper St. Louis bay and river and on the Duluth side. It is pretty definitely settled that the Populists' scheme to build an elevator at the expense of the state at Duluth is pigeonholed. The Dakota scheme for an elevator at the head of the lakes is likewise in a fair way to sink into oblivion. It is the prevailing sentiment among business men that paternalism is serviceable mainly for purposes of theories and not for practically controlling the wheat market.

## LAKE GRAIN FREIGHTS.

The following table will be a valuable record for reference this season, and it is the general belief that rates will rule lower from the beginning than during the past season. The table gives the rates on wheat from Duluth, Chicago and Toledo during the navigable season of 1892.

	1892.	Chicago.	Duluth.	Toledo.
April 8.....	2 1/2	—	1 3/4	—
11.....	2 1/4	—	1 3/4	—
18.....	1 3/4	—	1 3/4	—
19.....	1 1/2	3	1 3/4	—
20.....	2 1/2	2 3/4	1 3/4	—
21.....	1 1/2	2 3/4	1 3/4	—
22.....	1 1/2	2 3/4	1 3/4	—
23.....	1 1/2	2 3/4	1 3/4	—
26.....	2	2 3/4	1 3/4	—
29.....	2 1/4	3	1 3/4	—
May 3.....	2 1/4	3 1/4	1 3/4	—
5.....	2 1/4	3 1/4	1 3/4	—
12.....	2 1/4	3 1/4	1 3/4	—
14.....	2	3 1/4	1 3/4	—
21.....	1 3/4	3 1/4	1 3/4	—
26.....	1 1/2	3 1/4	1 3/4	—
27.....	1 1/2	3 1/4	1 3/4	—
June 1.....	1 1/2	2 3/4	1 3/4	—
2.....	1 1/2	2 3/4	1 3/4	—
8.....	1 1/2	2 3/4	1 3/4	—
10.....	1 1/2	2 3/4	1 3/4	—
13.....	2	2 3/4	1 3/4	—
30.....	1 1/2	3	1 3/4	—
July 1.....	2	3	1 3/4	—
9.....	2	3 1/4	1 3/4	—
23.....	2 1/4	3 1/4	1 3/4	—
27.....	2 1/4	3 1/4	1 3/4	—
Aug. 1.....	2 1/4	3	2	—
5.....	2 1/2	3 1/4	2	—
11.....	2 1/2	3 1/4	2	—
12.....	2 1/4	3 1/4	2	—
20.....	2 1/2	3 1/4	2	—
Sept. 9.....	2 1/2	3	2	—
10.....	2 1/2	3	2	—
24.....	2 1/4	3	2	—
Oct. 1.....	2 1/4	3 1/2	2 1/2	—
10.....	2 1/2	3 1/2	2 1/2	—
11.....	2 1/2	3 1/2	2 1/2	—
15.....	2 1/2	3 1/2	2 1/2	—
19.....	2 1/4	4	2 1/2	—
Nov. 2.....	2 1/2	4	2 1/2	—
4.....	2 1/2	4	2 1/2	—
5.....	2 1/2	3 1/2	2 1/2	—
11.....	2 1/2	3 1/2	2 1/2	—
12.....	2 1/2	4	2 1/2	—
14.....	2 1/4	4	2 1/2	—
15.....	2 1/2	4	2 1/2	—
20.....	2 1/2	3 1/2	2 1/2	—
21.....	2 1/2	3 1/2	2 1/2	—
25.....	2 1/4	3 1/2	2 1/2	—
26.....	2 1/4	3 1/2	2 1/2	—
30.....	2 1/4	4	2 1/2	—
Dec. 4.....	2 1/4	—	—	—
7.....	2 1/4	—	—	—

Wheat rates from Milwaukee were about the same as from Chicago, and from Detroit about the same as from Toledo. Indications point to a late opening of navigation this spring, and during the first rush rates may be held firm, but with the added capacity in the way of new whalebacks and other craft, the tonnage will undoubtedly be plentiful. With the World's fair and consequently increased passenger traffic, the liveliest season in the history of the lakes is anticipated. E. T. Evans, Western manager of the Anchor line of steamers from Buffalo; H. W. Wilcox, general freight agent of the Western Transit Co. at Chicago, and A. L. Evans, general agent of the same company at St. Paul, have been in the city during the past week looking over their dock properties and warehouses on both sides of the bay. The Anchor line will operate the passenger steamers China, India and Japan and a number of freight boats between Duluth and Buffalo. The office will be in this city, but Superior will be given equally good facilities for doing business. The Western Transit Co. will run the steamers Badger State, Empire State, Idaho and several others, with a long line of freighters, making the same stops on both sides of the bay as the Anchor line. At the time of the dissolution of the Lake Superior Transit Co., it was supposed that its boats would be scattered, but it is definitely announced that they will be held intact for this service as before.

## SKETCH OF A NEW MILL.

The new flouring mill of the Duluth Flouring Mill Co. will be a model structure and a fine mill in every respect. Between the present time and the 1st of next October, \$300,000 will be expended on the plant, and it will be fully equipped and running. The structure will be, as shown by Architect Tenbush's plans, 70x140 feet on the ground and 7 stories high. The walls will be of brick, and instead of being bleak and unattractive, as is usually the case in mill architecture, considerable attention will be paid to detail and effects. In addition to the main structure will be a warehouse, elevator and engine room; the warehouse will be 100x200 feet in area, one and two stories high, a portion of the second floor to be used as a packing room. The elevator is located 200 feet from the mill and has a capacity of 150,000 bus. of wheat. The engine house is 35 x110 feet, with a boiler room 50 x60 feet. The power will be furnished by two Corliss-Cross engines of 1,600 horse power each, and a battery of six horizontal Babcock & Wilson water tube boilers. The stack is to

be eight feet and six inches in diameter and 100 feet high. The plant is on what is known as Rice's point and will have superb shipping facilities. The present plan is to fit up half the mill, giving it a capacity of 3,000 barrels a day. H. P. Gill will have the management of the mill, which insures its popularity and success. The capital stock is \$500,000, most of which is taken. Work is now in progress on the foundation and the mill will turn out flour for Thanksgiving.

## GENERAL NEWS NOTES.

At a recent banquet given by the jobbers of this city, Jim Hill, the railway potentate, was the special feature. Mr. Hill made a speech of more than usual interest, even for him. He counseled the gentlemen to conserve the railway terminals; to look to the future and provide for the enormous facilities that will be required to take care of the railway business. Mr. Hill's road handles a great deal of wheat every year. Referring to this matter, he said: "I remember the occasion of the opening of the Board of Trade in this city five or six years ago. On that occasion it was thought I drew the bow rather long when I said Duluth would handle more grain than Chicago. In this past year I think it is certainly safe to say that Duluth has handled twice as much wheat as Chicago—twice as many bushels of wheat as all the railroads have hauled into Chicago." Speaking of his connection with the Great Northern, Mr. Hill said: "When I took charge of the railway in 1879, the road carried, that year, 2,185,000 bus. of wheat. From the crop of 1891 we carried 57,000,000 bus.—that was one-third of the spring wheat raised in North America. We have not the returns in for this year, but I think I am safe in saying that the crop of 1892 will exceed on our lines 50,000,000 bushels." The line from the Red River Valley to Duluth, Mr. Hill said, would be pushed to early completion.

A citizen of Port Arthur, referring to wheat and kindred matters in his city, states that the Canadian Pacific Railway has, at Ft. William two elevators of 2,500,000 bus. capacity; but that they are rarely ever filled at that capacity. The total elevator capacity along the Canadian Pacific and other railways from Port Arthur west is 11,700,000 bus. The Western elevators are all owned by either wheat buying or milling firms, with an occasional one by the farmers. All the elevators are now practically full. Most of the wheat trading is done at Winnipeg. A good flouring mill of from 500 to 1,000 bbls. capacity would be nicely bonused by Port Arthur. Port Arthur and Port William, which

lie about like Duluth and Superior, can within three years send a cargo of Wheat to Montreal or Liverpool without breaking bulk; then the Northwestern farmer can have his wheat delivered in Liverpool at a minimum rate of freight. The average cost of transporting a bushel of wheat from Port Arthur to the seaboard will not be to exceed 5 cents. The Port Arthur & Duluth railway is now running for 91 miles, six miles of it in Minnesota. We hope soon to see it connected with the Duluth & Iron Range road, and a new through route from Port Arthur to the South." This looks a trifle formidable to the United States merchant marine. When wheat can go directly from Port Arthur to Liverpool in unbroken package, with ample railway facilities from Port Arthur to the wheat fields, that ship canal to the sea will suddenly grow in popularity.

The Imperial mill has hit upon a novel exhibit at the World's fair; it is in the shape of a typical, actual old mill. The plan was suggested by a lady in Indiana, who sent a sketch of an old mill, with water-wheel and all. Manager Church then set about to find some old Eastern mill, and discovered one near Reading, Pa., known as the Binkley mill. It is in operation as it has been for the past century and a half. The exterior of the mill remains as it was built, the changes having all been made in the interior. It was the first intention to buy the mill and have it taken to Chicago, but it has been decided to reproduce it on a scale to accommodate the space. Mr. Binkley will be an accessory if he can be induced to come along.

C. D. Wright, of the Duluth Roller mill, is in the East.

Manager Church, of the Imperial mill is in New York on business.

Following are the officers of the new Duluth Flouring Mill Co.: H. P. Gill, president; Geo. W. Buck, vice-president; C. D. Wright, secretary; W. E. Richards, treasurer.

A. Bailey and S. D. Cargill have been elected members of the Superior board of trade.

During February the Lake Superior Car Service Association handled 8,583 cars in Superior, and 7,847 cars in Duluth. Some of the items of freight were as follows:

Wheat, flax, rye and barley.....	1,052
Flour and feed.....	969
Corn and oats.....	129
Hay and straw.....	282
Empty barrels and barrel stock.....	36
Coal and coke.....	10,736

Geo. Spencer and John MacLeod, well known grain dealers, have returned from a Florida and Southern trip.

Secretary Thompson, of the Chamber of Commerce, feeling the need of a vacation, is absent from his desk at present.

No official announcement has been made as to the location of the new Board of Trade building. Eligible sites are bidding for the big building. H. F. J.

DULUTH, March 11, 1893.

## SUPERIOR.

The "Daisy" Mill.

A GREAT mill, with a bad name, has been added to the large flouring concerns on this shore, and Superior is still in the lead. The Lake Superior (of the Daisy Milling Co.) Daisy Mill is complete and in operation. The first wheat ground in the mill rushed out of the elevator into the mill Tuesday afternoon, March 6. The machinery worked admirably and without a jar or hitch. At 4 o'clock "Old Glory" was hoisted over the splendid structure and scores of citizens paid their respects and attested to their enthusiasm by calls. The mill is believed to be without a superior in the country, and is not only a credit and bonanza to its energetic owners and managers, but to the city as well. It is located on Montreal Pier, East End, built of light colored brick, it is a handsome and imposing structure. Work was commenced in February, 1892, about a year being required to erect the plant. The Edw. P. Allis Co., of Milwaukee, furnished the machinery, which was the best that celebrated house could turn out. The ultimate capacity is 6,000 barrels a day, but it is geared now for 3,000 barrels a day. The officers are: Edwin Reynolds, president; W. D. Gray, vice-president; L. R. Hurd, secretary and manager; W. W. Allis, treasurer; Charles Allis, assistant treasurer; L. B. Weller, head miller. Barrels for the output are being shipped in from Stillwater, but the stock will soon be furnished by the Nineteenth street barrel factory which is being built in this city by capitalists of Minneapolis. Much of the flour that is now being ground is put into bags. B. F. Goodell is erecting a bag factory which will soon supply the local demand. The officers of the new mill are especially well pleased with the start made by the "Daisy," as well as with the bright outlook.

## WHEAT INSPECTION.

At a recent meeting of the Board of Trade the bill providing for State inspection was brought up and sat upon, especially by the Duluth interests. The bill provides that in any city of Wisconsin, having a population of less than 150,000, wherein there is a Board of Trade existing under the laws of the State, all elevators or warehouses in which grain is stored in such manner that the identity of the different lots cannot be preserved, and doing

business for a commission, are declared public elevators. G. G. Barnum, secretary of the Duluth Elevator Co., said there were good reasons why their elevators were built on the Wisconsin side—to avoid the troublesome and burdensome Minnesota laws; it was not for available sites—Duluth had those—but to do business under more favorable conditions. He predicted that in the future all elevators coming to the head of the lakes would be located at Superior, for the reason that the Minnesota grangers in the legislature hamper the business with their restrictive legislation. A. A. Freeman said that many prefer State inspection. S. G. Cargill, of Minneapolis, sent a letter protesting against the bill. A. Harrington said his people built in Superior to escape Minnesota legislation; the proposed bill will drive elevators from Superior. R. M. Todd asked the elevator men if it were possible for Superior to build up a Board of Trade without State inspection. "Why is it you people build expensive elevators on this side and then go over into Minnesota and give a big bond for their inspection?" The question was bandied about with considerable vim, but without satisfactory result. The elevator men will oppose the measure to the last. Referring to this matter, Head Miller Weller, of the Daisy mill, said that they would prefer to have their inspection done by the Superior Board of Trade, as the business would be better taken care of. The trouble is, some dealers are not acquainted with this inspection, and being familiar with the Minnesota rules they prefer the Minnesota inspection.

The following inspection grades are used by the Superior Board of Trade:

No. 1 Hard Spring Wheat—No. 1 hard spring wheat must be sound, bright and well cleaned, and must be composed mostly of Scotch Fife and weigh not less than fifty-eight pounds to the measured bushel.

No. 1 Northern Spring Wheat—No. 1 Northern spring wheat must be sound and well cleaned and must be composed of the hard and soft varieties of spring wheat. It must weigh fifty-seven pounds to the bushel and contain 50 per cent. of the hard varieties.

No. 2 Northern Spring Wheat—No. 2 Northern spring wheat must be sound, reasonably cleaned and of good milling quality. To weigh fifty-six pounds to the bushel and to contain all varieties not suitable for the higher grades.

No. 3 Spring Wheat—No. 3 spring wheat shall comprise all inferior shrunken or dirty spring wheat, weighing not less than forty-five pounds to the bushel.

Rejected spring wheat shall include all spring wheat that is grown badly, bleached, or for any cause unfit for No. 3 wheat.

It is the producer who is demanding the State inspection, as he is inclined to feel that he needs some disinterested party

between him and the buyer, and in this the granger exhibits a considerable trace of hard sense. There seems to be a desire on the part of the local Board to get the Minnesota inspection out, and the Wisconsin inspection in, on a basis similar to that of Minnesota. A compromise is proposed by the Board of Trade: If the elevators will withdraw from their Minnesota bonds and become regularly on the Superior Board of Trade, accepting the Superior inspection and weighing, the Wisconsin State inspection bill will be withdrawn. And this may be the outcome.

Concerning the Wisconsin inspection one of the largest grain dealers in North Dakota writes the Board of Trade:

"In the report of your meeting on the 23rd, I see there was considerable talk about the farmers of North Dakota not accepting Wisconsin inspection as quick as they would Minnesota, and that they would have to be educated to do so, and all that.

"The farmers of North Dakota are anxiously waiting for the mills of Superior to start up, and for Superior to have a market of her own, and knowing that Superior has the lake than they will give her the preference over other markets, providing that they can get as good deals, which they surely will. They are not in love with the present inspection in Minnesota, and if Superior has a sample market, which she surely will, they will ship a great deal more wheat to the head of the lake than they have done before, instead of its going to Minneapolis as heretofore, and will ship it to Superior as quick under Wisconsin inspection as they would under Minnesota, and I think quicker.

"The farmers of North Dakota have a tender place in their hearts for Superior, and will give her the preference if there is any given.

"Duluth has one advantage over Superior; that is, her commission men are better known in the Northwest than the new firms of Superior, but by square dealing and a little hard work they can overcome that, as Superior has other advantages that Duluth hasn't.

"If one city is to have charge of all the inspection at the head of the lake, I think Superior should have it, as there is where the bulk of the wheat will be used and shipped, and she surely ought to have the say about the grades."

#### SWITCHING CHARGES.

In recent letters reference was made to the switching charges which had been in vogue here, and of the liberal policy adopted and followed by the railroad companies. In this regard the Northern Pacific railroad, in furthering its announced policy of cheapening the cost of using terminals at the head of the lakes, has formulated a new table of switching charges for wheat to the mills at Old Superior. The new rates are a considerable reduction, as it used to cost \$6 a car between the two cities. The charges now are as follows:

Wheat from points on the Northern Pacific direct to the mills at Old Superior will be switched and delivered free of charge.

Wheat from points on the Great Northern, delivered to the North-

ern Pacific at South Superior, or from the Eastern Minnesota, will be delivered at \$1.50 per car.

Wheat from the Chicago, St. Paul, Minneapolis & Omaha road, \$1.50 per car.

Wheat from points on the Northern Pacific consigned to commission men in Superior or West Superior, if disposition is given within twenty-four hours, to be delivered free.

Wheat from points on the Northern Pacific consigned to commission men in Duluth, if disposition is given within twenty-four hours, to be delivered at \$5 per car.

Wheat from elevators in West Superior delivered to the Northern Pacific by the Omaha at Old Superior, or Eastern Minnesota at South Superior, \$1.50 per car.

The Northern Pacific and Great Northern will establish clearing yards at South Superior for both sides of the bay, and Minnesota inspectors will be stationed there in order to facilitate the quick dispatch of grain.

#### CHOP STUFF.

The West End Chamber of Commerce and the Old Superior Chamber of Commerce are flirting with each other with honorable intentions, and a consolidation may be expected. The sectional war has been kept up, it is thought, too long already, and concessions and compromises are being made.

Charles C. Tennis is one of the recently elected members to the Board of Trade.

The Board of Trade has elected the following officers. The ticket which Mr. Todd headed had but little opposition—that gentleman received 39 votes, the total number cast:

President—R. M. Todd.  
First Vice-President—A. A. Cross.  
Second Vice-President—C. J. McCollum.

Secretary—H. A. George.  
Treasurer—Wilmot Saeger.

Directors to serve the full term of three years—C. J. McCollum, F. G. Peters, L. R. Hurd.

Committee on Arbitration—H. E. Ticknor, P. M. Chandler, A. McEachern, W. M. Tait, R. M. Todd.

Committee on Appeals—E. C. Kennedy, C. J. McCollum, S. T. Norvell, C. H. Sunderland, F. H. Decker.

The North Dakota legislature is considering a bill authorizing the state to publish a daily wheat report and circulate it. The measure should pass. Nothing should stand in the way of giving the granger all the information concerning his principal crop, that can be furnished him in reason.

The Flour Exchange Building company recently organized and incorporated, has elected officers as follows: R. M. Todd, president; L. R. Hurd, vice-president; F. E. Hanson, secretary and treasurer. Directors: R. M. Todd, L. R. Hurd, William Listman, Henry S. Butler and F. E. Hanson. The company will build on four lots on the corner of Fifth street and Thompson Ave. opposite the Euclid hotel, East end, beginning work as soon as weather will warrant. The structure will be five stories, of pressed brick and Lake Superior brownstone with Scotch Granite

trimmings. It will be a substantial and handsome block.

The by-laws of the Board of Trade have been so changed that any member is eligible to office; formerly members could not be elected to the directorate until after a year on the board.

Machinery is arriving for the Anchor Mill, and is being put in position.

Considerable wheat is being taken at the Minkota mill elevator. Nearly all the machinery in this plant is in place.

The Grand Republic mill machinery is being hoisted into place rapidly, and this famous plant will soon be turning out flour.

Owing to recent severe storms the railroads have not been delivering timbers for the east end elevators as rapidly as contractors would like, and work is inclined to drag there for the present.

A. B. Black for several years connected with the state grain inspection department at Minneapolis is in the city to take a position as flour inspector for the Lake Superior mill.

Officers of the Superior Bag and Printing Co., have been elected as follows:

President, O. J. Van Duzen; vice-president, A. C. Burnett; secretary and treasurer, J. M. Bushnell; general manager, B. F. Goodell. The following directorate was elected: A. C. Burnett, O. D. Van Duzen, J. M. Bushnell, C. R. Gallett, Prentice; W. H. Bonnell, S. B. Matthews, Chicago, and B. F. Goodell. The Land & River Improvement Co. will erect on Hughitt and Third a handsome 50 by 100 foot building for the company, which is capitalized at \$125,000, of which \$50,000 has been paid in.

The finishing touches are being made at the Listman mill. The brick and stone work is all completed, and the machinery is about placed. Some delay, it is understood, has been had at the Allis foundry on account of its great rush of orders, and the engines are yet to come. It is not probable that the mill will start up before the opening of navigation.

Several days ago A. A. Norman, employed in Elevator D, of the Lake Superior Elevator Co., while leaning against the railing over a huge bin, fell to the bottom, a distance of 70 feet. He died of his injuries a day or two afterward.

The Board of Trade has Duluth rules in dealing with differences between members. As there is a large number of both boards a uniformity of rules was thought to be desirable.

Cargill & Co., who are building the big elevator at the East end have about completed arrangements for what they term a "hospital" elevator, or warehouse. It will be a large structure. Such an elevator will be of great value to the wheat market here, as it will

afford a storage for off grade grain. This warehouse will take such wheat as millers may want for a common grade of flour, and it will enable buyers to accept consignments of wheat, where a portion of it is above or below grade.

J. B. H.

SUPERIOR, March 13, 1893.

#### MINNEAPOLIS.

THE stock of wheat in Minneapolis last Monday, was as follows:

No. 1 Hard	2,428 bushels.
No. 1 Northern	8,439,765 "
No. 2 "	805,519 "
No. 3 "	39,127 "
Rejected	6,805 "
Special Bin	2,474,397 "

Total.....11,789,751 bushels.

Increase past week...31,400 "

Our wheat market has been subjected to unusual conditions. Owing to the congested condition of the Chicago market, on the May option, our elevator line owners, were disinclined to increase their lines of "hedgies" in that market, and all new purchases in the country have been largely sold against, in our home market; which, with a lack of speculative orders here and with increased receipts from the interior, have given us a heavy and steadily declining market, May wheat reaching the lowest price ever known in this market, closing yesterday at 63½c. The uneasiness of elevator companies here, over the constantly widening difference between the value of their holdings of actual wheat in the Northwest, and the price of May wheat in Chicago, of which they were largely short in the way of protection, resulted in a pyrotechnical display in values yesterday, of an unusual character.

It is understood that a number of the shorts here, sent orders to Chicago, to the amount of several millions, to buy in their May sales in that market, and put them up for July. These orders resulted in a rapid advance of nearly 3c in the May option, and almost as rapid a decline in the July, while our own market declined as before stated to the lowest price ever known. It is thought the result of the losses made in these hedges in Chicago, will be to determine the wheat owners hereafter, to hedge more largely in this market and Duluth, and give Chicago the go-by. This may make an unusual depression here on the first movement of a crop, but will probably attract outside buying orders, if our prices are comparatively too low, and enlarge the trading in futures here, to correspond to the amount of actual wheat received. There seems no reason why the largest wheat market in the world, should not have the largest trade in "futures" in that cereal. When elevator com-

panies "hedge" in a market where they do not expect usually to make the actual delivery of their property, they place themselves in the same position as the speculative short seller and are liable to meet with loss.

The government report received yesterday showing a reserve in farmers hands of 134,000,000 bushels, not including wheat in country elevators, is hard to explain on any previous figures of Mr. Dodge's, which would have indicated, as shown by Mr. Dillingham in the *Chicago Herald* a few days ago, a reserve of about 90,000,000 bushels, including wheat in country warehouses. However, so many criticisms have been made on the uselessness of these government reports, that it is unnecessary to pursue this subject. In flour, the milling output here was largely reduced last week, owing to the snow blockade, falling off 42,000 bbls. from the previous week. The aggregate was 135,110 bbls., or about 25,500 bbls. daily, against 177,675 bbls. last week, and 180,920 bbls. the corresponding week last year. Freight cars have been scarce, but the supply has somewhat improved; barrels have also been hard to get in full supply. With the heavy thaw we have experienced for the past few days, and the rapid disappearance of the snow, the water-power will show a good increase, and lead to an increased production by the mills.

Flour has been rather slow of sale, and prices have required shading to induce purchases. The sales have averaged only about 20,000 bbls. daily, while old orders had to be depended on to dispose of the balance of the output. Europe has bought very sparingly, and at prices that show little if any profit. Quotations are as follows: First Patents \$3.55@4.00, Second Patents \$3.35@3.60, Fancy and Export Bakers \$2.05@2.50 and \$1.15@1.45 for low grades in bags, including Red Dog.

Millstuffs are steady. Bran in bulk \$10.25, Common Shorts \$10.25@11.00, Fine Shorts \$11@11.25 and Middlings \$12.

The defeat of the "Hatch Anti-Option Bill," by the last Congress, was accepted with great satisfaction by the trade generally, and this, and unsettling factor is now probably consigned to its grave for another four years at least. Already it has almost ceased to be thought of.

G. W. S.

Minneapolis, March, 11, 1893.

## LONDON.

SINCE the last letter we have had a very bad time in this country as regards the price of all agricultural produce and the result is that the public are the only section of the community

that have reaped the benefit, while those who have had to do the trade have, nearly in every case, suffered some loss. With the close of last week the genial weather which had prevailed during the greater part of February came to an end. Rain has now been falling in most parts of the United Kingdom during the past ten days, and with the quantity of rain that has fallen since last June, the sub-soil is well saturated, and if we do not get some dryer weather during the next six weeks, so that the sowing can be carried out in a good or rather a fair seed bed, the farmers will have a very serious calamity to face, with less money to contend against it. It is quite bad enough for them at the present state of the market, and, with this moisture, they are unable even to send to market wheat in a fit milling condition, so that now we have the price of English wheat, according to the Board of Trade returns, for last week as low as 25s 5d. In the year 1745, the average price of wheat was 24s 5d, but we have to go back these 147 years to find a lower price than that now prevailing. With such prices the farmers are not likely to make good the deficiency of area sown with wheat in the autumn, and as poor samples of home grown wheat fail to find purchasers at any price and the sales of better qualities have only been possible at many markets at easier terms than even the average price named above, so we may not expect the price of English wheat to advance to any great extent for some months to come. Foreign wheats have not helped to raise the price of the home grown article, and as the quantity on passage to this country shows an increase, with reports to hand from the countries now harvesting, most favorable, we shall have no improvement unless something comes to give the trade a "leg" up, such as a general European war. It is not only the English farmers that are now feeling the result of having too much food in the world, but the English millers have had a very bad time of it for the past twelve months, and during the past month some very sad balance sheets have been published, showing the amount of money that has been lost in trying to cover forward sales, perhaps with a little bit of speculation thrown in. The directors of Messrs. James Tucker, Limited, after quoting from the *Times*, which gives a statement of the wheat trade and the persistent decline in prices, state that they are satisfied that the business of the company is sound, and that, apart from losses caused by the extraordinary fall of prices upon large stocks and heavy

contracts, a good profit has been made. Continuing, they say:

"When dealing with a loss the directors have not desired to minimize it in any way. They have, therefore, written off a proportion of the preliminary expenses and a percentage for depreciation of the old machinery in the same manner as if a profit had been shown, and have also written off an additional reserve of £7,000, making a provision of £9,000 for bad and doubtful debts, and a special reserve of £5,000 against contingencies in connection with contracts made in the last year and not closed on the 31st of December last. It is believed that these provisions are sufficient to cover the risks of the company and to leave a balance for the current year's trading. The stocks have been carefully examined, and their value has been taken with reference to the state of the market at the end of the year and irrespective of cost. The quantities have been verified to the satisfaction of the auditors. The new mill was opened in June last, and it has worked in a manner answering all the expectations formed concerning it. The machinery and plant were scarcely completed last year, and, therefore, the depreciation upon these items will not commence until the next account. Since the beginning of the year a large portion of the stock comprised in the balance-sheet has been disposed of, and there is every reason to anticipate a satisfactory result from the current business. The directors have not taken any remuneration for the past year, but prefer to leave the matter in the hands of the shareholders after another account is stated. When approaching the close of the first half of 1892, the directors were advised that an interim dividend could properly be paid, and the fact was announced. Before actual payment thereof the depression of trade became more intense, and, therefore, the directors, although unable to withhold the dividend from other shareholders, have not received any dividend on their own shares. The retiring directors are Mr. J. M. Maclean and Mr. J. W. A. Stevens, who are eligible for re-election and offer themselves accordingly."

As the directors state, they do not wish to minimize the result of the unprecedented trade of this particular business for that year, and, notwithstanding the depression in the corn trade, they have thought it prudent to clear off all contingent liabilities, and to make provision as if the company had been in a most flourishing state. They have written off for the year £7,000 to reserve, and a further sum of £5,000 against contingencies in connection with contracts made last year and not closed at the end of the financial year. It will thus be seen that the loss shown according to the balance-sheet is £37,314 9s 3d, but against this a sum of £12,000 has been reserved for contingencies, which would leave the loss £25,314 9s 3d.

It should be mentioned that these mills, which have only recently been erected, have a capacity of about 50 sacks of flour, of 280 lbs. each, per hour. The largest mill in the country, the Liverpool North Shore Flour and Rice Mill, has only been able to declare a dividend at the rate of 5 per cent per an-

num for the second half of last year and the addition of £4,000 to the reserve fund, carrying over £437.

Baron von Hohenbruck, director of the Austrian Ministry of Agriculture, gives the official estimates of the principal crops of Austria for 1892, as below. Converted into English measures, the returns are as follows:

Crops.	Acres.	Bush. per Acre.	Bush.
Wheat.....	2,759,222	45,670,370	16.55
Rye.....	4,837,544	31,565,740	16.86
Barley.....	2,589,575	57,911,650	28.26
Oats.....	4,631,466	103,591,880	22.42
Maize.....	906,564	15,319,400	16.83

These returns, however, do not embrace Hungary.

A good deal of attention has been given since the opening of Parliament to the agricultural industry, and various remedies have been suggested and a good deal of light thrown onto the subject. The question of the price of bread was one of the subjects that received attention. Mr. Howard Vincent, M. P., tried to prove that the workmen in England, under free trade, were paying 7½d for a 4lb loaf, whereas in Protectionist France equally good bread was sold at 7¼d for a 4lb loaf, two-fifths of an English pound heavier. Mr. Howard Vincent's test loaf was purchased in the West End of London, and not in the East End, or in the country, where the price ranges from 3½d to 5d the 4lb loaf, and workhouse contracts are seldom more than 3d. As for French bread, it is of two kinds—one is 8d for the 4lb loaf and the other is 6d. The loaf is a little heavier than our English loaf, and therefore the exact relative price is 7¼d, so that on this point Mr. Howard Vincent is correct. Mr. Mundella, the president of the Board of Trade, in defense of the government, declared that the French bread, "owing to its color and texture would be objected to by English workmen and even by residents in our own Union workhouses." It appears from this discussion that the French workman pays 7¼d for an inferior loaf, or ¼d less than is charged for the finest loaves in the West End of London, and 6d for a still coarser kind of bread which English workmen would hardly touch, whilst the 3d and 4d loaf in England is better than the 7¼d loaf in France. In Rome the 4lb loaf costs 9½d, and in Milan 7d.

X. Y. Z.

LONDON, March 2, 1892.

## Postscripts.

I am going to start a flour and grist mill of 30 bbls. capacity at Upper Marlboro, Md., and would like to hear from mill furnishers.

F. W. HILL.

Upper Marlboro, Md., Feb. 21, 1893.

The most essential requirement in the milling fraternity, just now, is a device or means of figuring a margin on flour.

L. B. HICKS,  
of The Delavan Mill Co.  
Delavan, Wis., March 4, 1893.

## ALL KINDS.

## TOO "PROGRESSIVE" FOR HIM.

I am somethin' of a vet'ran, jest a turnin' eighty year—  
A man that's hale an' hearty an' a stranger  
tew all fear—  
But I've heard some news this mornin'  
that has made my old head spin,  
An' I'm goin' to ease my consuns if I  
never speak agin!

I've lived my fourscore years of life, an'  
never till tew day  
Wuz I taken fer a Jackass or an ign'rant  
kind o' Jay.

Tew be stuffed with such durned nonsense  
'bout them crawlin' bugs an' worms  
That's a killin' human bein's with "Mikro-  
scopic germs."

They say there's "Mikrobes" all about a  
lookin' fer their prey—  
There's nothing pure tew eat nor drink an'  
no safe place tew stay  
There's a "Miasmy" in the dew-fall, an'  
"Malar" in the sun—  
'Taint safe to be out doors at noon or when  
the day is done.

There's "Bactery" in the water an' "Tri-  
keeny" in the meat—  
"Ameeby" in the atmosphere, "Calory" in  
the heat—  
There's "Corpusculs" an' "Pigments" in  
a human bein's blood—  
An' every other kind o' thing existin' sence  
the flood.

Terbacker's fullo' "Nickerteen," whatever  
that may be—  
An' your mouth'll all git puckered with  
the "Tannin" in the tea—  
The butter's "Olymargareen," it never saw  
a cow—  
An' things is gettin' wus an' wus from  
what they be jest now.

Them bugs is all about us just a waitin'  
for a chance  
Tew navigate our vitals an' tew 'naw us  
off like plants;  
There's men that spends a life-time hunt-  
in' worms, jest like a goose—  
An' tackin' Latin names to 'em an' lettin'  
on 'em loose.

Now, I don't believe such nonsense, an'  
I'm not agoin' to try—  
If things has come tew such a pass I'm  
satisfied tew die—  
I'll go hang me in the sullar, fer I won't be  
sech a fool  
As to wait until I'm pizened by a "Anny-  
mallycool!"

—Lugana W. Sheldon.

AMONG well bred people a mutual  
deference is affected; contempt of  
others disguised; authority con-  
cealed; attention given to each in  
turn; and an easy stream of con-  
versation is maintained, without  
vehement, without interruption,  
without eagerness for victory, and  
without any airs of superiority.  
—Hume.

"Do you take the Texas Agri-  
culturist?"

"I used to, but I don't any more.  
The editor insulted me."

"Really? In what way?"

"The other day I called on him  
and asked his opinion as to the best  
way of raising hogs, and he told me  
to pull myself up with a derrick."—  
Texas Siftings.

Hail, gentle spring!  
But, gentle spring, do not,  
We prithee, hail,  
Unless you make it hot.

—Detroit Free Press.

TRAVELER—"Do you think the  
lynch law you have here decreases  
the number of murders?"

Native—"Wall, I dunno; but it  
decreases the number of mur-  
derers."

A woman's most eloquent speech  
is "I love you." A man's "Come and  
take something, boys."—Texas Sift-  
ings.

The Arbitration Committee of  
the New York Produce Exchange  
made an award in the case of  
Robertson against A. D. Strauss &  
Co. on Feb. 20, that attracted a good  
deal of attention in the flour trade,  
as tending to establish a precedent,  
that a buyer of flour, bought to be  
taken as wanted or to arrive, must  
receive it and pay for same within  
a reasonable time if called upon by  
the seller to do so and a tender of  
the same is made. The facts were:  
Robertson & Co. sold Strauss & Co.  
3,500 barrels flour October 29th last  
"on the spot," as claimed by seller,  
and "to be taken as wanted," as  
claimed by the buyer. On January  
4th Robertson asked Strauss to

take the flour; and upon his refusal  
to do so summoned the buyer be-  
fore the Exchange authorities,  
which decided to-day (after consent  
of Mr. Strauss to do so) that the  
latter shall take and pay for the  
flour on the 20th of February.—  
Com. Bulletin.

PUCK: Rogers—"What makes  
your nose so red, Mr. Reilly?"

Reilly—"It glows with pride, sir,  
at not putting itself in other people's  
business."

## THE MILLERS' TRUST.

Regarding this much-talked  
and written of subject, the Chi-  
ago Herald of recent date says:

"Up to this time the spring wheat  
millers' trust has attempted only  
to establish a minimum price for  
flour. The work proceeds slowly  
and cautiously. No flour is to be  
sold under a fixed price. This cuts  
off the small mills, which are  
cheaply operated, as competitors  
with the big mills, and it accustoms  
the people to a slightly advancing  
price. The next step will be to re-  
gulate and restrict the output, creat-  
ing an artificial scarcity. Then will  
come a further advance and iron-  
clad prices at all points. The tac-  
tics of the anthracite coal combine  
will be strictly followed.

"If the Anti-Option bill had be-  
come a law this elaborate trust or-  
ganization would not have been  
formed. With the commercial mar-  
ket for wheat closed, there would  
have been only the millers' and the  
export markets open to the wheat  
farmers. The flour men would soon  
shut out the export wheat men by  
absorbing the foreign markets with  
flour instead of wheat. The millers  
would fix their own prices for  
wheat, their own time for buying it  
and their own methods of delivery  
and storage. This trust is for the  
purpose of creating some such a  
condition of things as an Anti-Op-  
tion law would have created. It is  
to establish a great combination of  
milling capital near and in the  
wheat-producing sections, which,  
by being nearer the farmers, by  
giving neighborly 'hold your  
wheat' advice, and by other  
methods, can monopolize the wheat  
market without advancing the price  
of wheat. It is a conspiracy to buy  
wheat cheap and sell flour dear."

## NO MORE S'IOKE.

The New System By Which Every Atom of  
Fuel is Consumed.

According to the Berlin cor-  
respondent of the London  
Standard, the problem of  
smokeless combustion of coal  
seems at last to be solved by a  
newly patented process which  
is exciting an immense sensa-  
tion in Germany. The patent  
has been taken out by a com-  
pany, which has already made  
contracts with a number of  
large commercial and indus-  
trial concerns—among others  
with the North German Lloyd,  
the Hamburg-American Packet  
Company, Schichau and the  
Vulcan Works at Stettin—for  
the introduction of its new sys-  
tem of firing.

In the construction of their  
new firing apparatus, the pa-  
tees have departed from all  
the methods hitherto employed.  
The coal is no longer burned in  
lumps, but is reduced to pow-  
der by means of the ordinary  
centrifugal mills. The new  
system, which is called "auto-  
matic and smokeless coal-dust  
firing," is extremely simple. At

the place where hitherto the  
coal was introduced into the  
fire grate, that is to say, at the  
furnace door, there is a move-  
able pear-shaped apparatus,  
consisting principally of a fire  
chamber lined with fire brick.  
One aperture of this hollow  
pear opens, in the direction of  
the axis of the boiler, into the  
mouth of the hitherto employed  
furnace, from which the fire  
grates, fire bridges, etc., have  
been removed. The opposite  
aperture of the hollow pear is  
intended to admit a current of  
air. By means of an ingenious  
automatic contrivance coal  
dust, supplied through a fun-  
nel placed above the current of  
air, is continually conveyed into  
the current of air and thence  
into the fire chamber where it  
is immediately brought into  
combustion by means of the  
small fire which is placed there.  
When this has once taken place  
the coal dust conveyed by the  
current of air continues to burn  
in one regular, intense flame.  
The current of air which brings  
the coal dust into the apparatus  
is regulated so as merely to  
convey the dust thither, where-  
as the further supply of air  
necessary for combustion is  
sent into the zone of combus-  
tion at right angles, and in  
radiating jets. By this arrange-  
ment the coal dust and the air  
in the zone of combustion are  
intimately and thoroughly  
mixed, whilst the speed of the  
current which introduces the  
coal dust is diminished.

It will thus be seen that the  
combustion of the coal which  
this method produces is ex-  
tremely thorough, for each par-  
ticle of fuel floats in the air and  
is brought into contact with  
the oxygen necessary for its  
combustion, so that it is totally  
consumed the moment it enters  
the sphere of combustion. The  
proof of its being totally con-  
sumed is seen in the fact that  
not even a trace of smoke is  
perceptible. With the pressure  
of a finger the supply of coal  
dust and of draught can be per-  
fectly regulated, and thereby  
an equable generation of heat  
secured.

Among the further advan-  
tages of the new system of  
firing may be mentioned the  
diminished wear and tear of  
steam boilers, the absence of  
fire grates and fire bridges, the  
ability to start or to stop the  
fire instantaneously, the ab-  
sence of heaps of cinders and  
ashes, and the avoided neces-  
sity for high chimneys. It is  
further claimed that this  
method of firing is suitable not  
only for steam boilers, but also  
for all kinds of heating, weld-  
ing, smelting and burning pro-  
cesses, that it can be used in  
all sorts of manufactures, and  
that by it not only ordinary  
coal, but also brown coal, char-  
coal, turf powder, etc., may be  
burned.

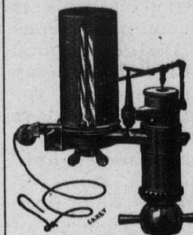
## American Steam Gauge Co.

Sole Manufacturers

BOURDON  
STEAM GAUGES.

WITH LANE'S IMPROVEMENT.

XXXXXXXXXXXXXXXXXXXXXXXXXXXX



THOMPSON'S  
IMPROVED  
INDICATOR.

Over 2,500 in  
use.

XXXXXXXXXXXXXXXXXXXXXXXXXXXX

## American Pop Safety Valves

For Locomotive, Stationary and Portable  
Boilers, and Instruments Incidental to  
the use of Steam.

Send for Price List I.

36 CHARDON ST.,

SEND FOR CATALOGUE K. BOSTON, MASS.

BRANCHES:

NEW YORK, N.Y. CHICAGO, ILL.,  
51 John Street. 16 N. Canal St.



RIPAN'S  
TABLETS

REGULATE THE  
STOMACH, LIVER AND BOWELS  
AND PURIFY THE BLOOD.

RIPANS TABLETS are the best Medi-  
cine known for Indigestion, Biliaryness,  
Headache, Constipation, Dyspepsia, Chronic  
Liver Troubles, Disinclination, Bad Complexion,  
Dysentery, Offensive Breath, and all dis-  
orders of the Stomach, Liver and Bowels.

Ripans Tablets contain nothing injurious to  
the most delicate constitution. Are pleasant to  
take, safe, effectual, and give immediate relief.  
Price—Box (6 vials), 75 cents; Package (4 boxes),  
\$2. May be ordered through nearest druggist,  
or by mail. Sample free by mail. Address:

THE RIPANS CHEMICAL CO.,  
10 SPRUCE STREET, NEW YORK CITY.



Scientific American  
Agency for

PATENTS  
CAVEATS,  
TRADE MARKS,  
DESIGN PATENTS,  
COPYRIGHTS, etc.

For information and free Handbook write to  
MUNN & CO., 361 BROADWAY, NEW YORK.  
Oldest bureau for securing patents in America.  
Every patent taken out by us is brought before  
the public by a notice given free of charge in the

Scientific American

Largest circulation of any scientific paper in the  
world. Splendidly illustrated. No intelligent  
man should be without it. Weekly, \$3.00 a  
year; \$1.50 six months. Address MUNN & CO.,  
PUBLISHERS, 361 Broadway, New York City.

The grand jury of Bartholomew  
County, Ind., has furnished to the  
bailiffs of court the names of forty  
of the most prominent society  
ladies in Columbus and ordered  
them to bring the women into its  
presence to tell what they know  
about the game of progressive  
euchre, at which valuable prizes  
were played for and won.

## Review of Reviews.

Nothing could be more timely and nothing could be more well-informed than the companion articles in the REVIEW OF REVIEWS for March upon America in Hawaii and England in Egypt. The discussion of American influence in Hawaii and of the strategic value to the United States of the Sandwich Islands, is from the pen of Mr. Sereno Bishop, than whom no other man in Honolulu is better qualified to discuss the subject. The REVIEW OF REVIEWS, by the way, comes out in this number taking very strong editorial grounds in favor of the complete annexation of Hawaii. The article on England in Egypt is from the pen of Mr. Stead, and is based upon the brilliant new book of Mr. Alfred Milner, who tells the story of the English occupation of Egypt and of the achievements of English administration there during the past ten years.

## New England Magazine

The leading illustrated article in the March number of the New England Magazine is a deerskin entitled "March," engraved from nature by W. B. Closson. The leading article is "Audubon's Story of His Youth," introduced by Maria R. Audubon. The illustrations are portraits after F. Cruikshank, J. W. Audubon and others. The second contribution is a description of "The Jaffe and Jerusalem Railway," by Selah Merrill, illustrated with drawings and pictures after photographs. "A Saharan Caravan" is described, with illustrations, by A. F. Jaccard. The fourth article of the series descriptive of "The Poor in Great Cities" is by William Jewett Tucker, who tells of "The Work of the Andover House in Boston." The illustrations are sketches among Boston institutions and Boston poor. Frances Hodgson Burnett's story "The One I knew the Best of All," begun in the January number, is continued. Published by Charles Scribner's Son's, New York.

## Scribner's.

SCRIBNER'S MAGAZINE for March is readable and interesting throughout. It opens with a picture entitled "March," engraved from nature by W. B. Closson. The leading article is "Audubon's Story of His Youth," introduced by Maria R. Audubon. The illustrations are portraits after F. Cruikshank, J. W. Audubon and others. The second contribution is a description of "The Jaffe and Jerusalem Railway," by Selah Merrill, illustrated with drawings and pictures after photographs. "A Saharan Caravan" is described, with illustrations, by A. F. Jaccard. The fourth article of the series descriptive of "The Poor in Great Cities" is by William Jewett Tucker, who tells of "The Work of the Andover House in Boston." The illustrations are sketches among Boston institutions and Boston poor. Frances Hodgson Burnett's story "The One I knew the Best of All," begun in the January number, is continued. Published by Charles Scribner's Son's, New York.

## Harper's.

HARPER'S MAGAZINE for March contains several illustrated articles of more than ordinary value. Among these there is a comprehensive and timely article on "Slavery and the Slave Trade in Africa," by Henry M. Stanley, with several striking illustrations by Frederic Remington; a paper on the famous palace and monastery of "The Escorial," by the late Theodore Child, with numerous illustrations; an attractive and graphic description of Florida—"Our Own Riviera," by Julian Ralph, illustrated by W. T. Smedley; and the first of a series of articles on "Washington Society," by Henry Lo mis Nelson, with appropriate illustrations by C. S. Reinhart.

## St. Nicholas.

ST. NICHOLAS for March opens with a poem entitled "The Cartoon," by Margaret J. Preston. The frontispiece has the same title. The first prose contribution is a highly interesting description of "Philadelphia—A City of Homes." The illustrations of this article are numerous and first class. The other noticeable illustrated articles are: "The Garret at Grandfather's," by Mary Hallock Foote; "The Bamboo," (verse), by Mary McNeil Scott; "My Aunt Aurora's Reticule," by Lillian J. Price; "A Tournament of Roses," by Charles Frederick Holder, and "The Three Caravels of Columbus," by John M. Elliott, U. S. N. M. Carrie Hyde concludes her serial story, "Holly-Berry and Mistletoe," and there are two installments of the serial by William O. Stoddard and Kate Douglas Wiggin. Published by the Century Company, New York.

## Lippincott's Magazine.

LIPPINCOTT'S MAGAZINE for March. The complete novel in this number, "Varing's Peril," is by Captain Charles King, the laureate of our little army. No living author is more sure of an eager audience, or more certain to hold and delight his readers. No one knows more thoroughly the matters of which he writes, and no one else can describe them with such graceful and natural art. His stories always have a plot; his characters are living men and women; he makes the barracks, the march, the battle-field as near to us as if we had been there; and he clothes them in something of "the light that was never on sea or land," for he is a poet, whose poetry insinuates itself through practical and most readable prose. The Journalist Series is carried on by Elizabeth G. Jones, who tells "The Newspaper Woman's Story." It is illustrated. M. Crofton, in

# JAMES LEFFEL WATER WHEELS



110 Styles and Sizes, Upright and Horizontal.  
30 YEARS' CONTINUOUS BUSINESS  
affords every facility for making them.

Specially adapted to all Purposes and Situations.  
Flour Milling, Mining and Manufacturing.

Plants of all kinds driven by them. Easy working gates. We guarantee highest power with smallest quantity of water, at full and part gates; insuring easy regulation and steady motion. Successfully operating under heads of 2 to 400 ft. Write us for fine pamphlet and state your wants.

THE JAMES LEFFEL & CO.  
SPRINGFIELD, OHIO, U. S. A. or 110 Liberty St., New York City.

"Men of the Day," talks of Thomas Hardy, Alma Tadema, Chief Justice Fuller, and Russel Sage. The poetry of the number is by Edith M. Thomas, Florence Earle Coates, and Herbert Ditchett. There are two short stories, both illustrated: "Hope Deferred," by Lillian A. North, and "A Rose of the Mire," by Kate Jordan. The latter is the first of a series of ten, one of which is to appear in each issue during the year. These stories will be gathered afterwards in a volume, the royalty on the sales of the book to belong to the writer whose tale secures the popular verdict. To determine this choice, our readers are invited to signify each month, by postal card addressed to the editor of LIPPINCOTT'S MAGAZINE, their opinions as to the merits of the short story in the last issue. Those who thus report as to each of the ten tales from March to December inclusive will receive, free of charge, a copy of the collected edition of "Notable Stories."

## The Century.

A new edition of 5000 copies of the February Century is now printing. The demand for the magazine this season has been very great. The publishers were for a time entirely out of January number, and they are now printing this new edition of February which has been for some time out of print. The March edition, which had already been increased, proves still inadequate, and a yet larger supply is in preparation for April. Among the recent attractions in THE CENTURY have been Mrs. Burton Harrison's story "Sweet Bells Out of Tune," Mark Twain's "Million Pounds Bank Note," the reply of the Russian Secretary of Legation to George Kennan, Gen. Sherman's Correspondence with his brother, Senator Sherman, the remarkable reminiscence of Napoleon at Elba, etc., etc. The April number will contain an important article on the Trial of the Chicago Anarchists by the Judge who presided.

## Engineering Magazine.

One of the leading articles in the ENGINEERING MAGAZINE for March is an illustrated review of "Shipbuilding on the Great Lakes," by Henry A. Griffin, Secretary of the Cleveland Board of Control. The illustrations are photographic pictures of the different types of lake craft. Another very interesting article with illustrations is a review of "The Glass-Making Industry in America," by R. M. Atwater, a former glass manufacturer. The remainder of the table of contents is as follows: "America's Need of the Nicaragua Canal," by Hon. Warner Miller; "The Relation of Architect and Engineer," by George Hill; "Is the Climate Changing?," by Prof. H. A. Hazen; "The Increase of Speed on Railways," (illustrated) by William Barnett Le Van; "Locations for the Pig Iron Industry," by John B. McKim; "American Railway Progress in 1902," by Thomas L. Greene; "Value of Long Distance Telephony," by Herbert Laws Webb; "American Annexation of Hawaii," by T. Graham Gribble, published by the Engineering Magazine Company, New York.

# PATENTS

Caveats, Trade-marks, Design Patents, Copyrights,

And all Patent business conducted for

MODERATE FEES.

Information and advice given to inventors without charge. Address

PRESS CLAIMS CO.,  
JOHN WEDDERBURN,  
Managing Attorney,

P. O. Box 463. WASHINGTON, D. C.

This Company is managed by a combination of the largest and most influential newspapers in the United States, for the express purpose of protecting their subscribers against unscrupulous and incompetent Patent Agents, and each paper printing this advertisement vouches for the responsibility and high standing of the Press Claims Company.

## WANTED.

Some Live, Practical Mill men, to introduce our New Method of  
LEVELING ROLLS WHILE RUNNING.

ADDRESS, AMERICAN ROLLER LEVELING CO.,  
MILWAUKEE, WIS.

## FOR SALE.

### A BARGAIN.

30-Barrel Flour Mill, full roller system, located in central Indiana, with good custom business. Runs every day. New machinery. Steam and water power. Favorable terms to responsible party. Address, NORDYKE & MARMON CO., INDIANAPOLIS, IND.

## FOR SALE OR FOR RENT.

FOR SALE—The flour mill known as the "MODEL MILLS," Rochester, N. Y., 200 barrels, winter and spring wheat, roller and stone process, modern machinery in good repair, good water power, long lease on easy terms, good custom trade. Must be sold to close an estate. Apply to C. D. Kiehel and John H. Campbell, Executors, 808 Wilder Building, Rochester, N. Y.

FOR SALE—The "PIONEER MILLS," Washington, D. C. This is a 500 barrel full roller mill, built according to the Edw. P. Allis system. First-class water power. Machinery of the most modern and improved patterns. Railway connections first-class. For full particulars address, AUSTIN HECK, Washington, D. C.

## WANTED.

### MILWAUKEE MILLERS.

AN important, reliable Flour Importing house in the Eastern part of Scotland wishes to open business relations, on usual documentary c. i. f. terms, with a Milwaukee miller of good standing. References at disposal. Appl. to Editor of UNITED STATES MILLER, 68-C Mitchell Building, Milwaukee, Wis.

## SITUATIONS WANTED.

A MILLER, 20 years of age, three years in this country, best acquainted with the Hungarian process, and in all kinds of farmers' grinding, desires a change of place. Wages moderate. Is a capable millwright and is owner of a set of tools. Address "Miller," care of UNITED STATES MILLER, Milwaukee, Wis.

WANTED—A thorough miller and millwright desires a situation. References furnished if desired. Address, MILLER MILLWRIGHT, Box 123, Nashville, Tenn.

WANTED—A change by a competent miller with 15 years' experience in good mills. Am a young married man, now managing a successful mill. One year in this position: three years in last as foreman of a 150 barrel mill. Have a complete kit of tools, and do repairing. References furnished. Correspondence solicited, from Nebraska especially. Address, S. C. EARNEST, St. Joseph, Mo.

WANTED—A situation by an experienced miller, single man. Hard wheat country preferred. References, Guthrie Bros. Can go at once. Address, W. A. PARK, Box 73, Superior, Neb.

### A COMPETENT MILLER

Who has had 20 years' experience in the manufacture of flour and corn meal, wants a position. If in need of such a man, or having any information that would lead to a beneficial result, please address, ERNST BADER, 934 Russell Ave., St. Louis, Mo.

## DEALERS.

WM. L. BOYD. ALBERT L. BOYD.

WM. L. BOYD & BRO.,  
GENERAL COMMISSION MERCHANTS,  
FLOUR, GRAIN AND MILL FEED,  
208 Spear's Wharf, BALTIMORE, MD.

We make a specialty of Flour and Mill Feed. Our trade on the medium and lower grades of Flour by far exceeds the supply at all times. Millers having a surplus would do well in sending samples and consulting us first, before disposing of same. Liberal advances made on consignments. REFERENCES: BALTIMORE BANKS.

GEO. W. PHILLIPS, JR.,  
Commission Merchant in  
FLOUR AND GRAIN,  
763 THE ROOKERY,  
CHICAGO.

ROSS T. SMYTH & CO.,  
Grain and Flour Merchants,  
17 FENWICK STREET,  
LIVERPOOL.

C. CAESAR & CO.,  
GRAIN EXPORTERS,  
30 North Front St.,  
PORTLAND, ORE.

S. S. LINTON & CO.,  
Grain Commission Merchants,  
42 Board of Trade, DULUTH.  
46 Chamber of Commerce,  
MINNEAPOLIS.

H. W. PARRISH,  
MONTGOMERY, ALA.  
Solicits Correspondence looking to the Sale of  
FLOUR, GRAIN, HAY,  
ETC., ETC., ETC.

H. R. STROEMER,  
Grain and Provision Broker,  
MACON, GA.  
CORRESPONDENCE SOLICITED.  
Reference: Exchange Bank, or any other bank in Macon.

N  
O  
R  
T  
H

E  
A  
S  
T

W  
E  
S  
T

S  
O  
U  
T  
H



GEO. H. HEAFFORD, General Passenger Agent.  
J. H. HILAND, General Freight Agent.  
CHICAGO, ILL.

W. J. BOYLE, City Pass. and  
Ticket Agent,

400 East Water St., Milwaukee, Wis.



With its thousands of miles of perfectly equipped  
road reaches the most important points in  
ILLINOIS, IOWA, WISCONSIN, NORTHERN MICHIGAN,  
MINNESOTA, NORTH AND SOUTH DAKOTA,  
NEBRASKA and WYOMING.

### SOLID VESTIBULED TRAINS

Between Chicago and St. Paul,  
Minneapolis, Council Bluffs,  
Omaha, Denver and Portland.

### FREE RECLINING CHAIR CARS

Between Chicago, Council  
Bluffs, Omaha, Denver and  
Portland.

### THROUGH SLEEPING CARS

Between Chicago and San Francisco  
without change.

### SUPERB DINING CARS

For Tickets, Time Tables and full information  
apply to Agents.

### CHICAGO & NORTH-WESTERN R'Y.

Or address the Gen'l Pass. and Ticket Ag't at Chicago.  
W. E. NEWMAN, J. M. WHITMAN, W. A. THERL,  
3rd Vice-Pres. Gen'l Manager. Gen'l Passenger  
N. A. No. 4-00. and Ticket Agent.

### CHOICE OF 2 TRAINS

— VIA —

## MONON ROUTE

— BETWEEN —

CHICAGO and  
INDIANAPOLIS,  
CHICAGO, CINCINNATI,  
LOUISVILLE,  
AND ALL POINTS SOUTH.

### Unsurpassed Pullman Car Service.

FAST TRAINS. SURE CONNECTIONS.

### SHORT ROUTE TO FLORIDA.

Be sure your tickets read via Monon  
Route (L. N. & C. Ry.), and your comfort  
is guaranteed.

For Maps, Guides, etc., address

JAMES BARKER,  
Gen'l Pass'r Agent,

Monon Block, CHICAGO.

ALL persons desiring to reach  
the entire flour and grain trade, by  
circular or otherwise, should ob-  
tain a copy of "Cawker's American  
Flour Mill and Grain Elevator Di-  
rectory for 1892-93." Address THE  
UNITED STATES MILLER, publisher,  
68-c Mitchell Bldg., Milwaukee, Wis.



### RUN

Fast Trains with Pullman Vestibuled  
Drawing Room Sleepers, Dining Cars and  
Coaches of latest design, between Chicago  
and Milwaukee and St. Paul and Minne-  
apolis.

Fast Trains with Pullman Vestibuled  
Drawing Room Sleepers, Dining Cars and  
Coaches of latest design, between Chicago  
and Milwaukee and Ashland and Duluth.

Through Pullman Vestibuled Draw-  
ing Room and Tourist Sleepers via the  
Northern Pacific Railroad between Chi-  
cago and Portland, Ore., and Tacoma,  
Wash.

Convenient Trains to and from Eastern,  
Western, Northern and Central Wisconsin  
points, affording unequalled service to and  
from Waukesha, Fond du Lac, Oshkosh,  
Neenah, Menasha, Chippewa Falls, Eau  
Claire, Hurley, Wis., and Ironwood and  
Bessemer, Mich.

For tickets, sleeping car reservations,  
time tables and other information, apply  
to agents of the Line or to Ticket Agents  
anywhere in the United States or Canada.

S. R. AINSIE, General Manager, CHICAGO, ILL.  
J. M. HANNAFORD, Gen'l Traffic Mgr., ST. PAUL, MINN.  
J. C. BARLOW, Traffic Manager, CHICAGO, ILL.  
JAS. C. FORD, Gen'l Pass'r and Tkt Agt., CHICAGO, ILL.

## MILWAUKEE, LAKE SHORE & WESTERN R'Y.

THROUGH

### SLEEPING AND PARLOR CAR LINE

— WITH —

### FAST TRAINS

## CHICAGO AND MILWAUKEE

— TO —

### APPLETON, WAUSAU and ASHLAND

The Gogebic, Penokee and Montreal  
Iron and Mineral Ranges.

### HURLEY, IRONWOOD, BESSEMER and WAKEFIELD.

The Manufacturing Centers and Lumber-  
ing Districts of

CENTRAL and NORTHERN WISCONSIN,  
SHEBOYGAN, MANITOWOC,  
KAUKAUNA, APPLETON,  
WAUSAU, ANTIGO,

EAGLE RIVER and RHINELANDER

The only Line reaching the Celebrated  
Fishing Resorts of Northern  
Wisconsin and Michigan.

Gogebic, Tomahawk and Pelican Lakes,  
RHINELANDER,

EAGLE WATERS,

TWIN LAKES,

LAKE VIEUX DESERT,

WATERSMEET.

The ONTAGON, BRULE and other Trout Streams,  
Noted for their excellent Muskallonge, Bass,  
Pike, Pickerel and Trout fishing.

### DIRECT LINE

Via New London Junction and G. R., W. & St. P. R. R.

— FOR —

SEYMOUR, GRAND RAPIDS AND  
STEVENS POINT.

Via Ashland and Northern Pacific R. R.

— FOR —

Superior, West Superior, Duluth,  
Pacific Coast and Intermediate Points.

Guide Books, Maps, Time Cards and full  
information furnished on application to  
the General Passenger Agent.

Milwaukee City Office, 102 Wisconsin St.

Chicago City Office, 203 Clark St.

H. F. WHITCOMB, C. L. RYDER,  
General Manager. Gen'l Pass'r Agent.

MILWAUKEE, WIS.

EXPORTING millers should write  
to the Riverside Printing Co., Mil-  
waukee, Wis., for the best Flour  
Cable Code ever published. There  
are more copies of this Code in use  
than of ALL other flour codes pub-  
lished. It is simple and accurate.  
It is called "The Riverside Flour  
Cable Code."

## THE Cleveland, Cincinnati, Chicago & St. Louis RAILWAY.

## BIG FOUR ROUTE

### CHICAGO

### INDIANAPOLIS

### and CINCINNATI.

The only Line Running the  
POPULAR BUFFET SLEEPING CARS

### CHICAGO AND CINCINNATI.

The Only Line from Chicago running  
Solid Vestibule Trains into Central  
Union Depot, Cincinnati, where connec-  
tion is made with Through Car Lines  
for Florida, avoiding all disagreeable  
transfers.

Through Tickets via the Big Four  
Route can be procured at all Ticket Offices  
in the Northwest.

O. C. MURRAY, D. B. MARTIN,  
Traffic Manager. Gen'l Pass'r Agent  
CINCINNATI, O.

## GRAND HAVEN ROUTE

D., G. H. & M. R. Y.

This Favorite Summer Route with its  
PALATIAL IRON STEAMERS  
CITY OF MILWAUKEE and WISCONSIN  
AND FIRST-CLASS TRAIN SERVICE  
IS NOW OPEN.

Steamers leave Milwaukee daily (Sunday  
included) at 8.00 p. m., connecting at  
Grand Haven with limited Express which  
leaves at 6.40 a. m., arrives at Grand  
Rapids 6.45 a. m., Saginaw 11.00 a. m., Detroit  
11.50 a. m., Toronto 8.20 p. m., Niagara Falls  
7.50 p. m., Montreal 7.45 a. m., New York  
10.25 a. m., Boston 3.00 p. m.

### Buffet Parlor and Sleeping Car Service

Tickets on sale at all coupon ticket offices;  
company's office, 99 Wisconsin St., and at  
dock, foot of West Water St.

JOHN W. LOUD, B. C. MEDDAUGH,  
Traffic Manager. Passenger Agent,  
Detroit. 99 Wisconsin St., Milwaukee

## OCEAN.

White Star, Inman, Cunard, Anchor,  
Bremen, Hamburg, French, and all other  
lines.

Cabin plans and sailings sent by mail  
and rooms secured in advance.

Very Cheap Steerage Rates, British  
ports and Milwaukee, \$31.50.

B. C. MEDDAUGH, Gen'l Steamship Agt.,  
99 Wisconsin Street, Milwaukee.

## BOOKS.

A PRACTICAL TREATISE ON MILL  
Gearing Wheels, Shafts, Riggers, etc.  
for the use of engineers, with eleven  
plates. T. Box. Third edition. 12 mo.  
\$1.00.

FIVE HUNDRED AND SEVEN  
Mechanical Movements, embracing all  
those which are most important in  
Dynamics, Hydraulics, Hydrostatics,  
Pneumatics, Steam Engines, Mill and  
other Gearing, Presses, Horology and  
Miscellaneous Machinery. H. T. Brown.  
Sixteenth edition. 12 mo. \$1.00.

A TREATISE ON MILLS AND MILL  
Work. W. Fairbairn. 8 vo. \$3.75.

A MANUAL OF MACHINERY AND MILL  
Work. W. J. M. Rankine. Fifth edition,  
thoroughly revised by W. J. Miller, with  
nearly 300 illustrations. 12 mo. \$5.00.

TEMPLETON'S ENGINEER, MILL-  
wright and Mechanic's Pocket Com-  
panion, revised, corrected and enlarged  
from the Eighth English edition by  
Julius W. Templeton. 12 mo. \$2.00.

A TREATISE ON FRICTION AND LOST  
Work in Machinery and Millwork. R. H.  
Thurston. 61 illustrations. 8 vo. \$3.00.

AMERICAN MILLER AND MILL  
wright's Assistant, by William Carter.  
Hughes 12 mo. \$1.50.

THE MILLER'S, MILLWRIGHT'S AND  
Engineer's Guide, by Henry Pallett  
Illust. 286 pages. 12 mo. \$2.00.

PRACTICAL HINTS ON MILL BUILD-  
ing, by R. J. Abernathy. Illust. 8 vo.  
\$1.00.

## BOOKS.

Any of the books in this list will be sent  
by mail, free of postage, to any part of the  
world, upon receipt of price. Address and  
make all drafts payable to the order of

THE UNITED STATES MILLER,

68-c Mitchell Bldg., MILWAUKEE, Wis.

Any of the books in this list will be sent  
by mail, free of postage, to any part of the  
world, upon receipt of price. Address and  
make all drafts payable to the order of

THE UNITED STATES MILLER,

68-c Mitchell Bldg., MILWAUKEE, Wis.

Any of the books in this list will be sent  
by mail, free of postage, to any part of the  
world, upon receipt of price. Address and  
make all drafts payable to the order of

THE UNITED STATES MILLER,

68-c Mitchell Bldg., MILWAUKEE, Wis.

Any of the books in this list will be sent  
by mail, free of postage, to any part of the  
world, upon receipt of price. Address and  
make all drafts payable to the order of

THE UNITED STATES MILLER,

68-c Mitchell Bldg., MILWAUKEE, Wis.

Any of the books in this list will be sent  
by mail, free of postage, to any part of the  
world, upon receipt of price. Address and  
make all drafts payable to the order of

THE UNITED STATES MILLER,

68-c Mitchell Bldg., MILWAUKEE, Wis.

## GOODRICH STEAMERS

ON REGULAR TIME

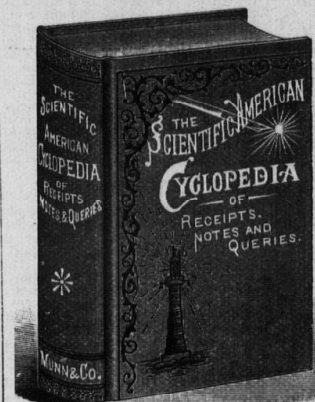
### LEAVE MILWAUKEE FOR

Chicago daily, Saturdays excepted,  
at 7.00 p. m.  
Racine daily, Saturdays excepted,  
at 7.00 p. m.  
Sheboygan daily, Sundays and  
Mondays excepted, at 7.00 a. m.  
Manitowoc daily, Sundays and Mon-  
days excepted, at 7.00 a. m.  
Sheboygan on Sundays and Mon-  
days at 7.00 p. m.  
Manitowoc on Sundays and Mon-  
days at 7.00 p. m.  
Kewaunee and Ahnapee Saturdays  
at 7.00 a. m.

Thomas Forbes, G. Hurson,  
Passenger Agent. Sec. and G. T. M.

## NOW READY!

### A NEW AND VALUABLE BOOK.



12,000 Receipts. 680 Pages. Price \$5.

This splendid work contains a careful  
compilation of the most useful Receipts  
and Replies given in the Notes and Quer-  
ies of correspondents as published in the  
Scientific American during the past fifty  
years; together with many valuable and  
important additions.

Over Twelve Thousand selected receipts  
are here collected; nearly every branch of  
the useful arts being represented. It is by  
far the most comprehensive volume of the  
kind ever placed before the public.

The work may be regarded as the product  
of the studies and practical experience of  
the ablest chemists and workers in all  
parts of the world; the information given  
being of the highest value, arranged and  
condensed in concise form convenient for  
ready use.

Almost every inquiry that can be thought  
of, relating to formulae used in the various  
manufacturing industries, will here be  
found answered.

Those who are engaged in any branch of  
industry will probably find in this book  
much that is of practical value in their  
respective callings.

Those who are in search of independent  
business or employment relating to the  
home manufacture of sample articles, will  
find in it hundreds of most excellent sug-  
gestions.

By mail postpaid to any part of the world  
upon receipt of price. Address and make  
all remittances payable to order of

THE UNITED STATES MILLER,

68-c Mitchell Building. Milwaukee, Wis.

## CLUB LIST.

We can furnish the UNITED STATES  
MILLER with any of the following papers  
or periodicals, for one year, at prices named  
the money to accompany the order:

Harper's Monthly and United States

Miller.....\$4.25

Harper's Weekly and United States

Miller.....4.25

Harper's Bazar, weekly, and United

States Miller.....4.25

Harper's Young People, monthly, and

United States Miller.....2.50

Century, monthly, and United States

Miller.....4.50

St. Nicholas, monthly, and United

States Miller.....3.50

Scribner, monthly, and United States

Miller.....3.40

Scientific American, weekly, and

United States Miller.....4.50

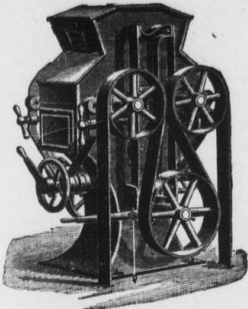
Stationary Engineer, weekly, and

United States Miller.....2.00

And other publications at reduced rates.

ADDRESS

UNITED STATES MILLER,  
MILWAUKEE, Wis.



THE KEYSTONE  
4 ROLLER WHEAT MILL.

## Flour Mills. \* Corn Mills. \* Hominy Mills.

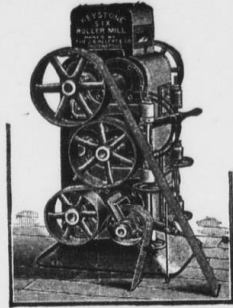
### DON'T

Build a new mill;  
Increase your capacity;  
Have your rolls reground or recor-  
rugated;  
Buy even a pulley, a belt, or a piece  
of bolting cloth,

• • UNTIL YOU WRITE US. • •

### WHY?

Because we will give you first-class  
work and prompt attention.  
Because we will treat you fairly on  
prices.  
Because we have the best and most  
effective line of machinery.  
Because we guarantee satisfaction  
in every particular.  
AND WE WANT TO HEAR FROM YOU.



THE KEYSTONE  
6 ROLLER CORN MILL.

Address, THE J. B. ALLFREE MFG. CO., 12th St. and Michigan Road,  
INDIANAPOLIS, IND.

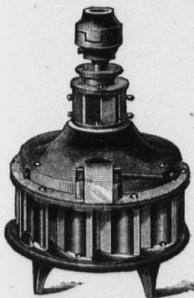
# Cawker's American Flour Mill and Grain Elevator Directory FOR 1892-1893

Contains: 1. A list of Flour Mills in each State, Territory and Province, with names of owners, P. O. and county; in thousands of instances giving their capacity in barrels per day, kind of power used, etc., also indicating such firms as are supposed to be worth \$10,000 and upwards. Total number of mills given, about 18,000.

2. A list of miscellaneous mills, such as Corn, Oatmeal, etc.
3. A list of Millwrights.
4. A list of Grain Elevator Owners and Grain Dealers.

The price is invariably **Ten Dollars per Copy**, on receipt of which it will be sent, post paid, to any part of the world. The complete work only is sold. We do not supply lists for single states. These Directories have been issued every two years since 1878, and have been declared indispensable by the prominent mill-furnishers, flour brokers, millers, etc., of this country and Europe. Address,

UNITED STATES MILLER, 68-C Mitchell Building, Milwaukee, Wis.



## BURNHAM'S NEW IMPROVED STANDARD TURBINE.

It gives on either a Vertical or Horizontal shaft more power for its price, yields a greater percentage for water used, either with full or part gate drawn, and is the simplest, most durable and best finished wheel made. Send for illustrated catalogue and state head of water and power required.

BURNHAM BROS., YORK, PA.



BRANCH HOUSE, 1425 EAST MAIN ST., RICHMOND, VA.

ESTABLISHED 1856.

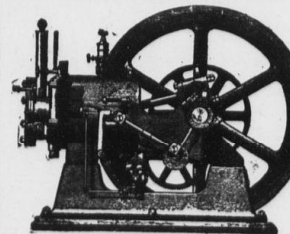


## DRAWBACK ON BAGS COLLECTED.

R. F. DOWNING & CO.,

NEW YORK.

## VANDUZEN GAS AND GASOLINE ENGINE For Grain Elevators, Flour Mills and for General Uses. STATIONARY AND PORTABLE.



JUST THE THING FOR GRAIN ELEVATORS.

OFFICE OF WELLS BROTHERS,  
DEALERS IN LUMBER, GRAIN, COAL, ETC.

Marathon, Iowa, Sept. 28, 1891.  
VANDUZEN GAS & GASOLINE ENGINE CO.,  
Gentlemen:—We have had our engine in use about eight months, and can unhesitatingly say, the longer we use it the better we like it. It is especially adapted to elevator work. By being able to set it to run any number of revolutions per minute, from one hundred to three hundred, it enables us to regulate the speed of our cleaner to suit all kinds and conditions of grain, better than can be done with cone pulleys. We do not have to hire any special help to run it, as we start it in the morning, and it will run itself till noon or night as we desire, using gasoline only in proportion to the work done, which is about one gallon to the indicated horse-power used in ten hours time. We can start it in a few minutes when everything is cold, and "last but not least," we are paying one and three-quarter per cent. insurance, and our competitor is paying three and one-quarter per cent. for the same work, except he uses steam. Very respectfully, WELLS BROS.  
Satisfaction guaranteed in every particular. For full particulars and prices address VANDUZEN GAS AND GASOLINE ENGINE CO., 27 Broadway, CINCINNATI, OHIO.



## "WESTERN" MILL SHELLER.

The Most Compact, Durable,  
Best Sheller and Best Cleaner.

Takes up but little room, runs at low rate of  
speed, requires no attention. It is  
in every respect the

Best Sheller ever offered to the Public

Please mention this paper.

Write for full particulars to . . . . .

Manufacturers of "Western"  
Shellers, Cleaners, Separators, and all kinds of  
Elevator Machinery.

UNION IRON WORKS,

DECATUR, ILL.

Don't forget to mention this paper when you write.

ESTABLISHED 1846

## J. B. A. KERN & SON Merchant Millers

Capacity 2,000 Barrels per Day.

MILWAUKEE,

Manufacturers of Choice Minnesota and Dakota  
Hard Wheat Flour.

WIS. . . . .

RYE FLOUR

We Invite Correspondence from  
Cash Buyers. . . . .

By most approved roller process,  
guaranteed the best and purest rye  
flour manufactured. . . . .

# THEY COME FROM ALL DIRECTIONS.

**The**

We are much pleased with Scalper, and find it meets all expectations.

ALLEN & TRELEVAN,  
FOND DU LAC, WIS.

**New**

We are well pleased with the way it has improved our flour, and the little attention it requires.

C. R. COOLEY & SON,  
HARTFORD CITY, IND.

**Era**

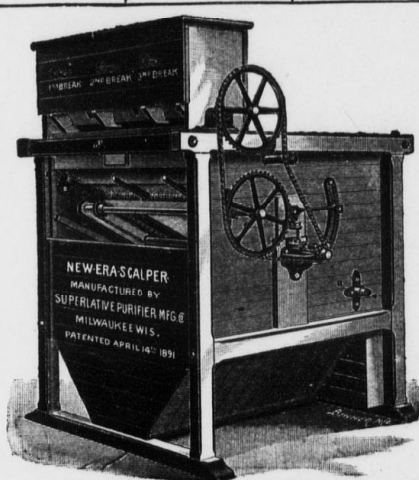
Have had ample time to test the machine, and are much pleased with our deal.

N. H. NEUPRUD & CO.,  
COON VALLEY, WIS.

**Scalper**

Have ground both winter and spring wheat and everybody about the mill is delighted with its work on either.

W. S. VARNER,  
ALEXANDRIA, PA.



We are much pleased with machine, and can give it a good recommend.

A. R. SPRAGUE & CO.,  
SPRINGFIELD, MO.

**Does not scour the stock.**

**Small Space.**

Enclosed find check for Scalper. I am well pleased with it. It is doing what you claimed for it.

W. E. FITE,  
BOSNE TERRE, MO.

**Prices Low.**

We are well pleased with it, and consider it the best machine in the market today.

CARTER, SHEPHERD & CO.,  
HANNIBAL, MO.

**Trial Allowed.**

**Has very large capacity.**

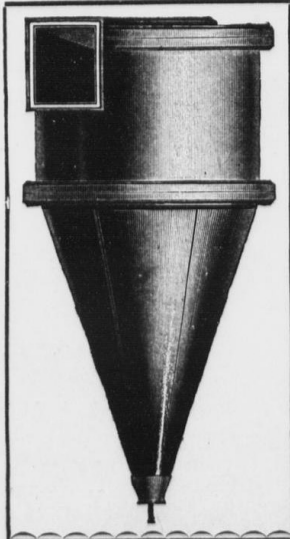
**Little Power.**

We consider it the greatest improvement we have made in our mill for years.

NEAL BROS. & CO.,  
PORTLAND, IND.

FOR CIRCULARS, PRICES, ETC., ADDRESS

**Superlative Purifier Mfg. Co., Milwaukee, Wis.**



## The Vortex Dust Collector

FOR  
GRAIN CLEANERS, PURIFIERS,  
AND ALL DUST PRODUCING MACHINES.

**Guaranteed to do as good work as any Collector on the market.**

TRIAL ALLOWED.

PRICES LOW.

FOR CIRCULARS, DISCOUNTS, ETC., ADDRESS

**VORTEX DUST COLLECTOR CO., MILWAUKEE, WIS.**